2004

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The Law and Economics of Contract Interpretation

Richard A. Posner*

Contract interpretation is an understudied topic in the economic analysis of contract law. This Article 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 doctrines to the interpretive medium—jurors, arbitrators, and judges in different kinds of judicial systems—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;¹ but the economic literature on contract interpretation has an abstract cast, evincing only limited interest in the relevant legal doctrines.²

Interpretation might seem an activity remote from economics—a subject for cognitive psychologists, epistemologists, students of linguistics, legal doctrinalists, perhaps even literary critics, rather than for economically minded lawyers—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.³ It 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,⁴ and that function is independent of whether there is any uncertainty about the meaning of 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 meaning, the challenge will present no interesting question of interpretation.

Still, significant interpretive questions often arise in contract litigation. The obvious but not the only reason, besides clumsiness in the use of words, against which the legal linguists warn us,⁵ is that contractual performance generally occurs over time rather than being complete at the instant the contract is signed. This is a central rather than an accidental feature of the institution of contract. Were exchange simultaneous and limited to goods the quality of which was obvious on inspection, so that there was no danger of unwanted surprises, there would be little need either for contracts or for legal remedies for breach of contract. The main purpose of contracts is to enable performance to unfold over time without either party being 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 or above the agreed price. So contracts regulate the future, and interpretive problems are bound to arise simply because the future is unpredictable.⁶ Stated otherwise, perfect foresight is infinitely costly, so that, as the economic literature on contract 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.⁷

³. The standard treatise discussion is 2 E. ALLAN FARNSWORTH, FARNSWORTH ON CONTRACTS ch. 7 (3d ed. 2004).
⁴. See, e.g., Thomas Cooley et al., Aggregate Consequences of Limited Contract Enforceability, 112 J. POL. ECON. 818 (2004) (discussing how the enforceability of contracts attracts external financing thus promoting economic activity of firms). 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 Article.
⁵. See, e.g., CARL FELSENFELD & ALAN SIEGEL, WRITING CONTRACTS IN PLAIN ENGLISH (1981).
⁷. See, e.g., RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 96 (6th ed. 2003) ("The less frequent an event is, the less likely it is that the parties thought about it, their neglect being a rational response to the costs of information relative to the benefits."); Jean Tirole, Incomplete Contracts: Where Do We Stand?, 67 ECONOMETRICA 741, 771-72 (1999) (concluding that parties
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 to the courts should the contingency materialize. This is especially likely if they think there is only a slight probability that the contingency will materialize. But even if they think the probability significant, they may prefer not to provide for the contingency. 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 of contract interpretation is to minimize 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 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 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, as my later example will show, 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 this Article to be intelligible to judges and practicing lawyers as well as to academics, and so I want to avoid formal analysis. But a simple equation may help to frame the analysis for some readers.

Let $C$ be the social transaction costs of a contract ("social" in the sense of including costs to third parties, such as the courts and future transacting parties, as distinct from just the costs to the parties to the particular contract). Then

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

(1)

where $x$ is the negotiation and drafting cost, $p$ the probability of litigation, $y$ the parties' litigation costs, $z$ the cost of litigation to the judiciary, and $e$ judicial error costs that reduce both the private and social value of contracts as a method of allocating resources. The first term on the right-hand side of the equation, $x$, 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 the costs that will result if the court misinterprets the contract. The likelihood and consequences of judicial error are 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, which will facilitate an accurate and expeditious judicial 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, that is multiplied, by the probability of a legal dispute, which is lower the more the parties invested at the first stage to make the contract as clear as possible; that is, \( p \) is declining in \( x \). The more contingencies the parties resolve at the drafting stage, the smaller the set of unresolved contingencies that might give rise to a legal dispute.

The object of judicial enforcement of contracts is to minimize the sum of these two types or stages of costs, the drafting-stage costs and the litigation-stage costs, rather than, 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 (in the sense of textualist) interpretation. By refusing to make use of all available information to interpret an unclear contract, formalist interpretation induces contracting parties to increase \( x \), with the effect of reducing \( p \). An increase in \( x \) is a real cost, and it may outweigh the savings in expected litigation costs from the reduction in the probability, and therefore expected cost, of litigation.

The interrelations among the variables are more complex than I have indicated, but the additional complexities are deferred to the last Part of the Article.

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. Similarly, they can agree on just a few things and leave the rest for a future negotiation by “agreeing to agree.” Another alternative is the substitution of vertical integration for contracting—a producer might choose for example to make rather than buy an input, though really this would just be substituting employment for output contracts, plus contracts to buy whatever physical materials would be used in manufacturing the input in house, for a contract to buy the input.

A fourth alternative, which has received a good deal of attention from economic analysts of contract law, is for a court or an arbitrator to 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. The theory is that otherwise the supplier would have delivered himself into the dealer’s power, which he would not be likely to do. 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 the name of impossibility, impracticability, or frustration, read into a contract an implied excuse based on these common law doctrines, unless the contract rejects the excuse. As it can; 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. Like the gap-filling doctrines, these clauses are guesses as to what the parties probably would have provided for explicitly had they written a more complete contract. 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 want such contracts to be slanted in their favor. 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 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 the practice is likely to be different. The benefits of the “good” form to the consumer are unlikely to be great enough to overcome the information costs of explaining those benefits so that they are a selling point. More important, being reminded of the possibility of litigation is a downer for the prospective consumer; few consumers would want to hear “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. 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 may well be subject to neither constraint as a practical matter, because he has no commercial reputation to lose and, depending on the value of his purchase, is probably not worth suing. Slanting the terms of the contract in favor of the seller is a way of redressing the balance. A related point is 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, may be 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 later when I discuss issues of interpretation.

Another method of gap filling, found in civil 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 minimized because the code provisions presumably will have been clearly drafted and received a uniform interpretation.12

Filling potential gaps in contracts 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 it 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 civil 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

10. Which I owe to Lucian Bebchuk.
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—which explains why 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 virtue of being exact. But its 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 tradeoffs in deciding whether to create a gap filler have been recognized for a long time. The benefits are 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 will refuse to fill the gap, as in the common law's refusal to enforce a contract that lacks a price or quantity term. The alternative of interpolating a "reasonable price" or "reasonable quantity" clause is rejected because a court would find it too burdensome to figure out what price or quantity the parties would have chosen had they negotiated the term. Not only would the court incur the administrative cost of having to conduct an elaborate inquiry, but no matter how elaborate the inquiry, a substantial probability of error would remain, and an erroneous interpretation undermines the utility of contracting as a method of organizing economic activity.


14. See, e.g., Echols v. Pelullo, 377 F.3d 272, 276 (3d Cir. 2004); Transact Techs., 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. U.C.C. § 2-305 (2003); see also Koch Hydrocarbon Co. v. MDU Res. Group, 988 F.2d 1529, 1534 (8th Cir. 1993); Lickley v. Max Herbold, Inc., 984 P.2d 697, 700 (Idaho 1999). 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, e.g., Farash v. Sykes Datatronics, Inc., 452 N.E.2d 1245, 1248 (N.Y. 1983).
Nor would the cost savings 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 reduce overall contractual transaction costs. On the contrary, it would increase them. 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 is implied by the parties' having inadvertently omitted the term. Also, the absence of such a term is often compelling evidence that the parties' negotiations had not reached the stage of actual agreement. In that event, judicial interpolation of terms would amount to the court 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 (no stronger prediction is possible, for reasons explained later) 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 derive 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 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 its benefits is thus superficial. They can exclude
judicial interpolation of such an obligation 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 are not necessarily 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. But this need not be 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 will have an incentive to inform the court of
the results of the inquiry, though depending on the results, it may be the
opposing party who has the incentive to inform the court of them.

III. Methods of Disambiguating Contracts

When considering the judicial role in disambiguating a specific
contractual term, one is 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 is not 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
parties included is unclear with reference to the particular contingency that
has materialized. They 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.15 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.”16 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.

7, 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. The date the cotton
was received 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

16. Swiss Bank Corp. v. Dresser Indus., Inc., 141 F.3d 669 (7th Cir. 1998).
There are several ways in which the court might proceed:

(1) Try to determine what the parties really meant; that is, assume they resolved the interpretive issue in their negotiations but just did not express their resolution clearly.

(2) Try to determine what resolution the parties would have agreed to had the issue occurred to them when they were negotiating the contract.

(3) Pick the economically efficient solution on the assumption that that is probably what the parties intended, or at least would have intended had they thought about the issue. This approach is especially useful when the parties’ actual intentions regarding the interpretive issue cannot be recovered and inquiry shifts to hypothetical intent, as in approach 2 above.

(4) 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. The second of these tie-breaking rules, *contra proferentum*, 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. But it still may be a serviceable tie-breaker when all interpretive measures fail. And later I will propose a rationale for the measure that is distinct from though related to the “pull a fast one” rationale and may retain force even in cases in which the nondrafting party is commercially sophisticated.

(5) Combine 1 and 4 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 formalist (literalist, textualist) interpretation.

Each approach has a different set of benefits and costs. The first involves the greatest benefits but also the highest costs. The benefits and costs of the second are slightly lower. It might seem that the third approach would confer the greatest benefits because it would produce the most efficient interpretation. But that is doubtful. If the parties are better judges of their self-interest than a court is—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, whether actual or (if the court can acquire real confidence that it knows what these parties would have decided had the interpretive issue occurred to them) hypothetical, 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;

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the best, when it can be done at a reasonable cost, is determining the
contractual meaning that the parties intended, or that they would have
intended had they thought about the issue.

Against this it can be argued that neither party is interested in efficiency
as such, but only in maximizing his profit, and so a party that, perhaps by
exploiting superior knowledge, can obtain a larger slice of a smaller pie may
be better off than if the contract maximized the joint surplus. This is
certainly possible, but presumably occurs in only a minority of cases. And
from a dynamic as distinct from a static perspective, we probably want
businesspeople to be able to profit from superior knowledge, in order to
create adequate incentives to produce knowledge.

But while approach 3 thus probably yields lower benefits than 1 or 2 in
most cases, it also imposes lower costs when it enables substituting the
court's best guess as to the interpretation that would maximize the joint
surplus of the contract, viewed ex ante, for a painstaking inquiry into the
parties' actual or hypothetical intentions. But if the court truncates its
inquiry by pretending that contractual interpretation is purely semantic,
approach 5, both benefits and costs are probably even lower.

The fourth approach, the use of a tie breaker, is the cheapest of all but in
most cases yields the fewest benefits. Indeed, the benefits may be negative if
the prospect of an arbitrary judicial resolution of a contractual dispute
induces parties to expend greater resources on careful drafting. Approach 5
may work in the same direction by truncating judicial inquiry into the
contract's meaning, though this will depend on the cost and accuracy of the
more searching judicial inquiry envisaged by approach 3 and especially 1.

In some cases, the information required by the first three approaches
will not be obtainable at a 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,18 or both parties are equally
blamable,19 for an incurable uncertainty in their contract, it makes economic
sense to allow the contract to be rescinded.20 For in such a case there is no

18. See Oswald v. Allen, 417 F.2d 43, 45 (2d Cir. 1969) (finding that two conflicting
understandings of the contract were both sensible).
1989) (finding that "[d]ue to mutual mistake as to the deed of trust's subject matter, no contract
between appellants and respondent was formed").
20. See Colfax Envelope Corp. v. Local No. 458-3M, Chi. Graphic Communications Int'l
Union, AFL-CIO, 20 F.3d 750, 753 (7th Cir. 1994). But this is in general rather than in every case.
As Scott Hemphill has pointed out to me, rescission should not be ordered if the consequence is a
windfall to one of the parties, even if the party was blameless for the mistake giving rise to the
claim for rescission. In Raffles, the contract was a losing one for the buyers whichever date the
cotton was shipped on, so that by rescinding the contract they were able to shift to the seller a loss
unrelated to the initial mistake. SIMPSON, supra note 15, at 153-54.
presumption that one party was trying to repudiate a value-maximizing transaction. But the qualification "equally blamable" is important, because one function of contract enforcement, as we will see, is to penalize a party who negligently creates interpretive uncertainty.

The fifth, 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. 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 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 that setting; one will prefer to remain on the semantic surface.

IV. The Interpretive Medium: Judges, Jurors, and Arbitrators

Since the first interpretive approach—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 a greater 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. 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


22. Later I will consider the choice between a lateral-entry judiciary, which draws judges from a legal practice in which they may have acquired some commercial know-how, and a career judiciary.
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. It might even increase the number of contracts, some fraction of which would give rise to litigated disputes. Substitutes for contracts become less attractive the lower contractual transaction costs are, and contracts are likely to be shorter the more competent the judges are because lawyers will not have to spell out everything for a dim interpreter. So lower contractual transaction costs result in more contracts, which may result in more contract litigation even if the rate of that litigation falls. But 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 is 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 might be prohibitive. The third or fourth approach—the use of tie breakers or literal 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 is the written contract—a public document—incompetent or corrupt contract decisions, which cannot be taken seriously as products of reasonable interpretation, will be easily detected.

Later I will consider judges who are intermediate between the two extremes that I have just sketched, but here I want to consider two alternative institutions of contract interpretation. 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. Contract arbitration is commonly performed by lay persons who, unlike jurors, have commercial

23. See John H. Langbein, Comparative Civil Procedure and the Style of Complex Contracts, 35 AM. J. COMP. L. 381, 385-87 (1987) (contrasting the European legal system with the American system and noting the effects on business planners); Hill & King, supra note 12, at 904-06 (describing the German legal system's approach to contract cases).
experience and usually some expertise in interpreting the type of contract at issue. One motivation for including an arbitration clause in a contract is to avoid the vagaries of determinations made by triers of fact such as jurors and judges. 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, we can expect contracts containing arbitration clauses to be, other things being 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 length of a contract might be a reason for the parties' 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;\textsuperscript{24} 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;\textsuperscript{25} and, because arbitrators are believed to tend toward middle-of-the-road results (as otherwise they are unlikely to be selected for future arbitrations), risk aversion.\textsuperscript{26}

Another motive for including an arbitration clause in a contract is that the party that expects to be sued if the contractual relationship breaks down 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 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

\textsuperscript{24} Judicial records are, with rare exceptions, public documents.

\textsuperscript{25} Christopher R. Drahozal, \textit{A Behavioral Analysis of Private Judging}, \textit{Law & Contemp. Probs.}, Winter/Spring 2004, at 105, 107. But again, I must reiterate that arbitration is often selected when the alternative is a trial by judge and not by a jury.

\textsuperscript{26} See, \textit{e.g.}, Alan Scott Rau, \textit{Integrity in Private Judging}, 38 S. Tex. L. Rev. 485, 523 (1997) (stating that arbitrator self-interest has "long been familiar in collective bargaining cases because repeat business is likely only if the arbitrator retains the goodwill of both union and management"); Bruce L. Benson, \textit{Arbitration, in 5 Encyclopedia of Law and Economics} 159 (Boudewijn Bouckaert & Gerrit de Geest eds., 2000) (stating that parties may each misrepresent their positions because they expect arbitrators to "split the difference" between their extreme demands); Jane Spencer, \textit{Waiving Your Right to a Jury Trial}, WALL ST. J., Aug. 17, 2004, at D1 (reporting the increase in the number of contracts abandoning arbitration clauses in exchange for clauses waiving jury trial). Although the belief that arbitrators tend to be "difference splitters" is widespread, it has yet to be empirically verified. Drahozal, \textit{supra} note 25, at 114–18. But there is some support for it in findings that there is less variance in arbitrators' awards than in jury awards. \textit{See id.} at 118. Since the lower end of the range of possible awards is truncated at zero, a reduction in variance is likely to reduce the average award. This would supply a motive for the contract party who was more likely to be sued than the other to want an arbitration clause in the contract.
party would object or would demand compensation. But it might not bother
to do so because the expected cost of arbitration 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. This 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 taken 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 so will truncate the defendant's
liability.

Mistrust of jurors as contract interpreters is further evidenced by the
growing practice of including a jury waiver in contracts. If the only motive
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 advan-
tage from middle-of-the-road judging. Most courts will enforce contractual
jury waivers. However, some will not, and a number of courts will
invoke "a presumption against denying a jury trial based on waiver," with the
result that such "waivers must be strictly construed." The refusal to enforce
such clauses and even the presumption make no sense. The usual reason
given is that because the right to a jury trial is 'highly favored, a waiver will
be strictly construed.' "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 also 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.

27. See Spencer, supra note 26.
28. See, e.g., Med. Air Tech. Corp. v. Marwan Inv., 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, 625 (Mo. 1997); Uribe v. Merchs. Bank, 642 N.Y.S.2d
23, 24 (App. Div. 1996); Emerald Tex., Inc. v. Peel, 920 S.W.2d 398, 403 (Tex. App. 1996); Gelco
29. See, e.g., Bank S. v. Howard, 444 S.E.2d 799, 800 (Ga. 1994); Grafton Partners LP v.
Superior Court, 9 Cal. Rptr. 3d 511, 513 (App. 2004).
31. The issue is helpfully discussed in Stephen J. Ware, Arbitration Clauses, Jury-Waiver
Clauses and Other Contractual Waivers of Constitutional Rights, LAW & CONTEMP. PROBS.,
32. Gaylord Dep't Stores, Inc. v. Stephens, 404 So. 2d 586, 588 (Ala. 1981); see also, e.g., N.
The relativity of legal doctrine to the character and quality of the adjudicative system is well recognized in the law of evidence. The rules of evidence are 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 other fields as well.

V. Interpretive Doctrines

My discussion of the doctrines of contract interpretation will be selective. I will not discuss the 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." I cannot make much sense of these. If two clauses are "repugnant," it is entirely possible that they are so because the parties goofed; 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 discuss.

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 did not 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 the writing admitted of only one meaning—from presenting evidence bearing on interpretation, which is to say "extrinsic" evidence—evidence outside the "four corners" of the written contract. The judge alone determines what the contract means when no extrinsic evidence is presented because he is a more competent interpreter of a document than a jury is.  


34. Notice that "extrinsic" is redundant, since the written contract itself is not evidence, that is, it is not submitted to a jury in its capacity as a trier of fact.
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 to extracting its meaning. The real significance of the rule, therefore, is in preventing juries from disregarding the actual, ascertainable 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 contracts may 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 a dispute between them, even at the cost of some inflexibility in interpretation."35 The added expense is due mainly to the fact that jury trials are on average longer than bench trials.36 This is because of the time required for the jury voir dire and jury instructions and deliberations, because matters 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. For as I noted earlier in explaining interpretive approach number 4, of which the "four comers" rule might be thought an 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 arbitration, the added expense takes the form of the arbitrators' fees, which the parties, not the taxpayer, pay.

As critics of pushing the four corners rule too hard like to point out, one can never be completely confident of being able to determine the meaning of a document from the document alone. "[Cl]arity 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."37 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.

35. 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, 510–11 (2d Cir. 1989) (finding that a jury award totaling over $3.5 million was "not supported by the evidence").

36. In the federal courts, jury trials are on average more than twice as long as bench trials. RICHARD A. POSNER, THE FEDERAL COURTS: CHALLENGE AND REFORM 193 n.1 (1996).

37. AM Int'l, Inc. v. Graphic Mgmt. Assocs., Inc., 44 F.3d 572, 575 (7th Cir. 1995); see also, e.g., Mar Oil, S.A. v. Morrissey, 982 F.2d 830, 840 (2d Cir. 1993) (stating that in a contract dispute "a court should find an agreement too indefinite" to be enforceable only when its meaning cannot be determined by reference to external circumstances).
No one just from reading the contract in *Raffles v. Wichelhaus* 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 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 denounce the rule as philosophically naive because meaning does not reside in a document but 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.

The mistake is in the word “therefore.” From the undeniable fact that contract 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 does not 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 extrinsic ambiguity to be shown only by *objective* evidence.39 By “objective,” I mean to exclude a

38. 9 JOHN HENRY WIGMORE, A TREATISE ON THE ANGLO-AMERICAN SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW § 2470, at 224, 227 (3d ed. 1940); see also STANLEY FISH, THERE’S NO SUCH THING AS FREE SPEECH, AND IT’S A GOOD THING, TOO 148 (1994) (“What becomes clear is that the determination of what is ‘inside’ will always be a function of whatever ‘outside’ has already been assumed.”). For criticism, see RICHARD A. POSNER, LAW AND LITERATURE 245–46 (rev. & enlarged ed. 1998) (“[W]ritten contracts would mean little if a party could try to persuade a jury that while the contract said X, the parties had actually agreed, without telling anybody or writing anything down, that the deal was Y.”).

39. For cases applying this principle, see Mathews v. Sears Pension Plan, 144 F.3d 461, 467 (7th Cir. 1998); Cole Taylor Bank v. Truck Ins. Exch., 51 F.3d 736, 737–38 (7th Cir. 1995); *AM Int’l, Inc.*, 44 F.3d at 575; Kerin v. United States Postal Serv., 116 F.3d 988, 992 n.2 (2d Cir. 1997); Duquesne Light Co. v. Westinghouse Elec. Corp., 66 F.3d 604, 610 (3d Cir. 1995); Carey Can., Inc.
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, and that party either denies that the conversation took place or disagrees about what was said. 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. 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 is harder to fake than parties' testimony concerning their intentions and understandings and unrecorded, unwitnessed conversations. The parties' behavior, as distinct from their assertions, at least when it predates the beginning of the controversy and so is not plausibly regarded as strategic, is also objective in my sense of the term.

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 the evidence that is 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 followed Pacific Gas & Electric case. But the difference between it and the "objective evidence" approach that I champion seems small; notice their common roots in concern that jurors might be swayed by spurious but perhaps plausible testimony.

Contracting parties who do not want the court to stray even this far from the written word can provide in their contract that the court should base its interpretation solely on the words of the contract, although I have not found a


40. See In re Envirodyne Indus., Inc., 29 F.3d 301, 305 (7th Cir. 1994). I am aware of criticisms that evidence of trade usage can be misleading too. For a balanced practitioner-oriented discussion, see FELDMAN & NIMMER, supra note 33, at § 5.03 (Supp. 2005).


42. See Smart v. Gillette Co. Long-Term Disability Plan, 70 F.3d 173, 180 (1st Cir. 1995).

43. See Mathews, 144 F.3d at 469.


45. Pac. Gas & Elec. Co. v. G.W. Thomas Drayage & Rigging Co., 442 P.2d 641 (Cal. 1968); see E. ALLEN FARNSWORTH, CONTRACTS § 7.12, at 479–80 (1999). For criticism, which may reflect a misunderstanding of the scope of the decision, see Trident Ctr. v. Conn. Gen. Life Ins. Co., 847 F.2d 564, 569 (9th Cir. 1988) ("[I]t matters not 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."). As my court explained in Cole Taylor Bank v. Truck Insurance Exchange, "California decisions since Trident have declined to endorse that decision's interpretation of California law." 51 F.3d 736, 737 (7th Cir. 1995).
case in which such a provision was mentioned. Maybe this is because the parol evidence rule, discussed in the next subpart, 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. Contracts do, however, sometimes contain disclaimers barring trade usage as an aid in interpretation or other disclaimers of conventional interpretive rules.

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 it can be defended on similar grounds. 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 and drafting, while the benefits would be realized only in the small minority of cases that would result in 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

46. "A merger clause attempts to restrict an adjudicator's interpretive base to the written words" of the contract. Alan Schwartz & Joel Watson, The Law and Economics of Costly Contracting, 20 J. L. ECON. & ORG. 2, 22 (2004). A merger clause, as we are about to see, is the standard method of invoking the parol evidence rule.

47. FELDMAN & NIMMER, supra note 33, § 5.03[A][3] (Supp. 2005).

48. 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 Between Era Aviation, Inc. and Columbia Helicopters, Inc. (Dec. 5, 1995) (on file with the Texas Law Review). This is one of the tens of thousands of contracts contained and searchable electronically in the very valuable and underused Digital Contracts Library maintained by the Contracting and Organizations Research Institute (CORI) at the University of Missouri and available 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), at http://cori.missouri.edu/WPS/Sykuta-CORI.pdf (Dec 19, 2001). The importance of the CORI Contracts Database is that the contracts that get litigated to the appellate level, which are the contracts that scholars mainly discuss, are not a random sample of all contracts. To the extent that the database contains a representative sample of particular classes of contract, it might enable an empirical determination of which, if any, judicially implied contract terms and interpretive doctrines are being regularly negated by contract drafters. This is a rich area for further research.

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.* 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 in the cost of electricity 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 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 will 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. Borrowing from the economics of torts, we might ask who the “cheapest cost avoider” in the case was—that is, who could at least cost have minimized the transaction costs (broadly defined, as throughout this Article, 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 would have exceeded the expected benefits; if so, it would probably be better, that is 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. Eminent as

Greenspan was, ALCOA itself should have realized that the WPI did not track its own cost structure.

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.

Because the probability of experiencing significant cost increases during 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 likely a contingency is to materialize, the less likely that an investment in careful drafting would be cost-justified; it would be 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 mistaken on two counts. First, if the expected benefits of judicial intervention are small, so are the expected costs. Second, while the probability of a particular contingency materializing may be slight; the probability that some contingency in what may be a very extensive array of low-probability events will materialize may be great. If there are ten independent events and each has a probability of occurring of one percent, the probability that at least one of them will occur is only a shade under ten 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 that it was sufficiently probable that making provision for it in the contract was 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 or judge as the 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 prohibiting the use of extrinsic evidence to supplement rather than only to contradict the written contract.

If a contract does not contain an integration clause, parol evidence will be admissible in the first instance for the limited purpose of enabling the judge to decide whether the contract was intended by the parties to be integrated—to represent the complete expression of their agreement. Only if the evidence convinces the judge that the parties did not intend the contract to be integrated will he allow the jury to resolve the interpretive dispute with the aid of such evidence.

C. Extrinsic Nonevidence or the "Best Guess" Rule

Probably more important in the American system of contractual interpretation than either the four corners rule or the parol evidence rule in limiting the scope of the jury and 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, 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, 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—in other words, 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." Because the simplest, most intuitive economic thinking is close to being common sense, we can begin to sense the importance of interpretive approach number 3—using 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 the least cost or, if the event is

51. Though often used as synonyms, purists distinguish the two terms, defining "vague" as indefinite in extension and "ambiguous" as having two or more possible meanings. I do not understand the relevance of the distinction to the interpretation of contracts.

52. Fishman v. LaSalle Nat’l Bank, 247 F.3d 300, 302 (1st Cir. 2001).
not preventable at a 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.\textsuperscript{53} Judges can understand this without formal training in economics (though it helps if they have had some practical experience with contracts), and they can often determine which party is the superior risk avoider or risk bearer without taking evidence.

Suppose the litigants present rival interpretations of their contract to the judge, and it is apparent, without the 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. "[S]ince 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."\textsuperscript{54} "People usually don't pay a price for a good or service that is wildly in excess of its market value, or sell a good or service . . . for a price hugely less than its market value . . . ."\textsuperscript{55} 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."\textsuperscript{56}

A closely related principle is that if it is apparent, again without having to conduct a trial to resolve factual disagreements, that one of the rival interpretations proposed does not make commercial sense, the interpretation will be rejected because it probably does not jibe with what the parties understood when they signed the contract.\textsuperscript{57} "[A] contract will not be

\textsuperscript{53} See POSNER, supra note 7, \S 4, at 95–98 (discussing the dangers of opportunism and unforeseen contingencies arising from nonsimultaneity in transactions). For judicial illustrations of the economic purpose of contracts, see Bidlack v. Wheelabrator Corp., 993 F.2d 603, 607 (7th Cir. 1993) (en banc); Mkt. St. Assocs. Ltd. P'ship v. Frey, 941 F.2d 588, 594–96 (7th Cir. 1991); Argonaut Ins. Co. v. Town of Cloverdale, 699 F.2d 417, 420 (7th Cir. 1983). And recall my discussion of the ALCOA case. See supra text accompanying note 50.

\textsuperscript{54} United States v. Nat'l Steel Corp., 75 F.3d 1146, 1151 (7th Cir. 1996) (citing Rhone-Poulenc Inc. v. Int'l Ins. Co., 71 F.3d 1299, 1303 (7th Cir. 1995)); \textit{see also In re Kazmierczak}, 24 F.3d 1020, 1022 (7th Cir. 1994) (finding that a "proposed contractual interpretation that would read out of a contract language obviously important to one of the parties faces and ought to face a distinctly uphill struggle for judicial acceptance; it is plain implausible"); Kaiser-Francis Oil Co. v. Producer's Gas Co., 870 F.2d 563, 566 (10th Cir. 1989) (noting that a "one-sided interpretation is suspect"); Martin v. Vector Co., 498 F.2d 16, 25 (1st Cir. 1974) (observing that a "one-sided interpretation, placing all the risk on plaintiffs is, if not utterly beyond belief, at least so unusual in . . . a bilateral contract that we think it unsupportable in the absence of evidence that such was actually intended").


\textsuperscript{56} Sharon Steel Corp. v. Chase Manhattan Bank, 691 F.2d 1039, 1051 (2d Cir. 1982); \textit{see also Frigaliment Importing Co. v. B.N.S. Int'l Sales Corp., 190 F. Supp. 116, 120 (S.D.N.Y. 1960) (Friendly, J.); cases cited in 2 FARNSWORTH, supra note 3, \S 7.11, at 471 n.23.}

\textsuperscript{57} See Dispatch Automation, Inc. v. Richards, 280 F.3d 1116, 1119 (7th Cir. 2002); R.I. Charities Trust v. Engelhardt Corp., 267 F.3d 62, 71 (1st Cir. 2001).
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.\textsuperscript{58} And even if an interpretation makes sense, it will be rejected if the rival interpretation is markedly more sensible. "Agreements, especially commercial arrangements, are designed to make sense. If one reading produces a plausible result for which parties might be expected to bargain, that reading has a strong presumption in its favor as against another reading producing an unlikely result (e.g., windfall gains, conditions that cannot be satisfied, dubious incentives)."\textsuperscript{59}

Notice how four of the five interpretive methods that I introduced in Part III—trying to determine the parties' actual intentions, trying to determine their hypothetical 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 also reckless, because it would be rare that a judge or jury had a better sense of what would be an 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; it is 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 small step beyond literalism that preserves many of the advantages of interpretive approach number 5. It is not invalidated by the fact that circumstances will have changed between the drafting of the contract and litigation over its meaning or that each party will search for evidence to support its preferred interpretation, rather than for evidence disinterestedly intended to illuminate the parties' original understanding.

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.\textsuperscript{60} The experienced judge's expertise is a substitute for the evidence that would be necessary to bring an

\textsuperscript{58}Beanstalk Group, Inc. v. AM Gen. Corp., 283 F.3d 856, 860 (7th Cir. 2002); see also Nelson v. Schellpfeffer, 656 N.W.2d 740, 743 (S.D. 2003); Bohler-Uddeholm Am., Inc. v. Ellwood Group, Inc., 247 F.3d 79, 96 (3d Cir. 2001). The qualification implicit in "very unlikely" should be noted; there is always a possibility that what seems absurd to a court was actually intended by the parties.

\textsuperscript{59}Nat'l Tax Inst., Inc. v. Topnotch at Stowe Resort & Spa, 388 F.3d 15, 19 (1st Cir. 2004); see also Utica Mut. Ins. Co. v. Vigo Coal Co., 393 F.3d 707, 711 (7th Cir. 2004); Baldwin Piano, Inc. v. Deutsche Wurlitzer GmbH, 392 F.3d 881, 883–84 (7th Cir. 2004).

\textsuperscript{60}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.
inexperienced judge up to the same level of knowledge.\textsuperscript{61} 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 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,\textsuperscript{62} though there is again a problem in determining 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 Part of the Article by offering the “rule” of “extrinsic nonevidence” as a method of jury control, it is also a way of reducing legal error. Not that judges cannot 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 litigating\textsuperscript{63}), there is always a possibility that the words chosen by the parties to describe their deal will not match 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. The assumption is not always justified; and when it is not, literalism may be the superior approach after all. Williston and Corbin may not be inconsistent; they may simply have different domains. Formalism in the sense of textualism may be the correct approach not only when the judges are of dubious competence or honesty, as I suggested earlier,\textsuperscript{64} but also when, as in the European judiciaries—and those of most other countries as well, such as Japan—they are career judges with 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 drawback to formalist interpretation when 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

\textsuperscript{61} Katz, supra note 2, at 526.


\textsuperscript{63} S.A. Healy Co. v. Milwaukee Metro. Sewerage Dist., 50 F.3d 476, 478–79 (7th Cir. 1995).

\textsuperscript{64} See supra Part IV HeinOnline -- 83 Tex L. Rev. 1606 2004-2005
thus do not expect bizarre consequences to follow from mistakes in drafting. There is frequent conflict between lawyer and client over how 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 be resolved in a commonsensical fashion. It is reassuring 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. Businessmen want judges to resolve interpretive issues in the way that a reasonable businessman would.

This is a conventional, though, as 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 firm that acquires a reputation for not honoring its contracts will encounter difficulty in finding 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.

Even if courts were not only pragmatic but omniscient, some contracts would be long. One function of a contract is simply to specify performance in detail, so that the performing party knows exactly what he is expected to do; construction contracts are a good example. And if the contract is detailed, the parties may be able to resolve a dispute over it themselves and thus without incurring the expense of a court proceeding.

D. Contra Proferentum

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

66. POSNER, supra note 7.
The doctrine of contra proferentum may still be a sensible tiebreaker, on the ground that the party who drafted the contract was probably in the better position to avoid ambiguities. But this is not always the case. The other party might have more information concerning the particular contingency that gave rise to the legal dispute—hence the exception, recognized by a number of courts, when the nondrafting party is commercially sophisticated.\textsuperscript{67} In any event, 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 Formal Analysis Revisited

Recall equation (1): 
\[ C = x + p(x)[y + z + e(x, y, z)] \]
where \( x \) is the cost of negotiating and writing the contract, \( p \) the probability of a legal dispute over the meaning of the contract, \( y \) the cost of litigation to the parties, \( z \) the cost to the judiciary, and \( e \) the social cost of an erroneous interpretation. I want to elaborate on the relations among these variables.

We know that the cost of negotiation and drafting, \( x \), is incurred with probability 1, while the remaining costs are incurred only if there is litigation, which has a probability of \( p \). As I have emphasized throughout the Article, that probability is lower the higher \( x \) is—the more time the parties spend negotiating and drafting the contract, the lower the probability that a dispute over meaning will arise, because more of the possible contingencies will be covered by explicit contractual language.

The cost of the litigation itself, the expression in brackets, consists of the litigation costs incurred by the parties, \( y \), which presumably are lower the greater \( x \) and \( z \) are (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 lower 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, \( e \), implicitly discounted by the probability that the court will make an error.

Let me pause to discuss 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 interprets the contract incorrectly and 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 would not be costless. For another thing, the more error prone the courts are, the more each party will spend on drafting so clearly that the court will not be able to mistake its meaning to reduce the probability that there will be a judicial error that will hurt it. So total expenditures at the negotiation and drafting stage of the transaction will rise. (That is the probably main cost of erroneous interpretation of contracts.) Another possibility is that potential contracting parties may be driven to substitute a less efficient method of regulating their relationship than contract. There may also be external costs if the institution of contracting is made more expensive, 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. Not only the probability of an erroneous decision, but also the size, and thus cost, of the error, is likely to vary with changes in $x$, $y$, and $z$. Expenditures on careful drafting and on litigating will not avert all errors but will probably avert the grossest ones, as 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 smaller the greater the investment in negotiating and drafting the contract and in litigating the legal dispute over its meaning. This point may help 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. We can think of this tendency as a substitute for judicial review of jury verdicts.

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 substitutability 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 make 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.
Although \( p \) is a function of \( x \), it is influenced by other factors as well, such as the complexity of the contract, its duration, irreducible uncertainty, and judicial unpredictability. 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. But this depends on why \( p \) is lower. If it is 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.\(^{68}\)

When \( p \) is 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 if and when they arise.\(^{69}\) Alternatively, because the longer the duration of a contract the likelier a contingency that was not foreseen and provided for is to materialize and precipitate a legal dispute, \( p \) will be greater the longer the term of the contract, which implies an increase in \( x \).\(^{70}\) Thus we can expect “relational” contracts to be more detailed and therefore longer than short-term contracts. But short-term contracts that are “relational” in the distinct sense of being between parties that engage in repeat transactions can be expected to be short, because the parties will be constrained by the hope of future business to resolve disagreements amicably; \( p \) will therefore be low, and there will be little incentive to incur high \( x \) in order to minimize \( p \).

Just as \( p \) may be exogenously high, so may \( y \), litigation expense, which might for example rise because of changes in procedural rules or because of increases in the price of legal services. Such an increase would be expected

\(^{68}\) 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 LA. L. REV. 1065 (2002).


\(^{70}\) For some evidence of this relation, see supra note 6 and accompanying text.
to cause an increase in \( x \), in order to reduce \( p \) and thus offset some of the increase in \( y \).

Consider now the effect of an increase in \( z \), 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 will be buffered, however, by the fact that an increase in \( z \) will reduce \( y \), for which \( z \) is a substitute. Even if the substitution is incomplete, so that \( z + y \) is larger than before \( z \) was increased, this effect on litigation costs may be offset by a reduction in error costs, since the more resources invested in a lawsuit the less likely it is to be decided erroneously.

This analysis may seem to imply an aggressive role for the court as contract interpreter because that would lower the cost of all contracts, by reducing \( x \), while probably increasing only slightly a litigation rate that is likely to be quite low, and perhaps not increasing the cost per litigated case at all. But this conclusion presupposes 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—an example of the substitution of \( z \) for \( x \). In this vein, John Langbein attributes the greater brevity of European contracts as 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."\(^7\)

Against this, however, is the concern one sometimes hears expressed by European lawyers that European judges lack a feel for commercial issues, and in particular for the importance of prompt judicial resolution of contract cases, because they do not come from practice, as most American judges do. In fact our contract judges are fairly aggressive, judging from the many departures from literalism that I have discussed in this Article. Yet it does seem that our contracts are longer than comparable European ones, and this may support Langbein's thesis of the superiority of European to American contract adjudication. It may suggest that specialization and professionalism beat worldliness when it comes to interpreting commercial contracts. I say "may" not "does" because an alternative interpretation of the brevity of European contracts is that the European civil codes contain so many default terms that most contracts consist largely of terms incorporated by reference to code terms. If so, that brevity may actually be a symptom of distrust of judges' ability to handle contract cases on their own.

In contrasting commercially savvy American judges, comfortable with pragmatic interpretation (or a pragmatic inflection of the four corners rule), with cloistered, commercially innocent European judges, condemned to

\(^7\) Langbein, supra note 23, at 386.
formalism, I am not only exaggerating for the sake of clarity; I am also concealing a troublesome trend in the American judiciary. Because judicial salaries have fallen relative to salaries of partners in law firms, fewer and fewer American judges have a substantial background in the practice of commercial law. Some do. Others have a background in economic analysis of law, and the isomorphism between economic analysis and commercial thinking may help these judges understand commercial transactions. But clearly we now have a mixed system consisting of judges who have a sufficient comfort level with the commercial world to engage in pragmatic contract interpretation and judges who do not and who are therefore likely to take a more formalist approach to interpreting contracts. Lawyers drafting contracts will rarely know which type of judge they will encounter in the event that a legal dispute arises over the meaning of the contract. This uncertainty will increase $x$.

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; these things may increase the workload of 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 hands of the parties rather than the judges. It is unclear which effect predominates in such a system. Increases in party litigation expenditures may thus increase the costs of resolving contract disputes indirectly by their effect on judicial effort, as well as directly. But there should be at least some offset as a consequence of 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. The greater that value, the likelier litigation is and also the greater are the litigation expenditures that the parties are likely to make. 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, large contractual transactions may be no more likely to be litigated than small ones. This is a counterintuitive implication of the analysis.

72. I realize this is self-serving testimony that is not even given under oath!
73. See the brief discussion in Battigalli & Maggi, supra note 1, at 808-09.
74. This is a general implication of economic models of litigation. POSNER, supra note 7, at 569.
The equilibrium state is unclear because of the mutual dependence of the variables and the difficulty of predicting expected litigation costs. Imagine, however, the following simplified sequence. The parties to the contract negotiation, having, let us say, only a vague impression of what either \( z \) (the judicial investment in resolving contract disputes) or \( e \) (the cost of an erroneous judicial decision) is, nevertheless have to pick an \( x \) if there is to be a contract. That pick will influence both \( p \) (the probability of an interpretive dispute that will give rise to litigation) and \( y \) (the parties’ litigation expenditures, should a legal dispute arise). Assume \( z \) is known. With \( x, y, \) and \( z \) known, and \( p \) at least “guessable” because it is a function of \( x \) ("guessable" rather than determinable because, as noted earlier, it is influenced by exogenous factors rather than just by \( x \)), the parties should be able to make a rough estimate of their total expected litigation costs. That estimate may in turn cause the parties to adjust their initial choice of \( x \), setting off a new round of estimates and adjustments. Because of the complexity of the calculations, and profound uncertainty, we can expect a wide dispersion of \( x \) across contracts. That complexity and uncertainty may explain, moreover, why many contract lawyers seem to give little thought to the possibility of litigation, and why in practice \( x \) may usually be a simple, positive function of the value of the contract.

The initial choice of \( x \), with the other variables taken as fixed, can be modeled as follows. I rewrite equation (1) as

\[
C = ax + p(x)[y + z + e(x, y, z)],
\]

where \( x \) is units of care in negotiation and drafting and \( a \) is the cost per unit, and the other variables are as before. To determine the choice of \( x \) that will minimize \( C \), I take the derivative of \( C \) with respect to \( x \), yielding (with rearrangement of terms)

\[
dC/dx = a + dp/dx[y + z + e(x, y, z)] + p(x)\delta e/\delta x,
\]

which when set equal to zero yields (provided that the rate at which a change in \( x \) causes a change in \( C \) is increasing\(^7\)) a minimum at

\[
a = - dp/dx[y + z + e(x, y, z)] - p(x)\delta e/\delta x.
\]

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\(^7\) Think of a graph with \( C \) on the vertical axis and \( x \) on the horizontal axis, the relation between them thus being describable by a curve. If the extreme point on the curve (the point at which the derivative of \( C \) with respect to \( x \) is zero, that is, a flat line) is a maximum, that is, the top of the curve, the rate at which \( C \) is changing with changes in \( x \) must be decreasing (i.e. the second derivative of \( C \) with respect to \( x \) is negative). Conversely, if the rate is increasing (i.e. the second derivative is positive), it means we're approaching the bottom of a curve, that is, a minimum point. For the cost function described here, this rate is always increasing in \( x \), and therefore equation (4) necessarily provides the minimum social transaction costs.
Because \( dp/dx \) and \( \partial e/\partial x \) are negative, the right-hand side of equation (4) is positive. Equation (4) says that parties will increase their care in negotiation and drafting until the effect on the expected costs of litigation (both the direct effect and the indirect effect because of the effect of increased care on error costs should there be a lawsuit) is just equal to the cost \((a)\) of the last unit of \( x \).

Let me end by noting 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. 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 and in any event may acquire a reputation as someone who does not 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.