

2003

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Recommended Citation

Robert E. Scott, *A Theory of Self-Enforcing Indefinite Agreements*, COLUMBIA LAW REVIEW, VOL. 103, P. 1641, 2003; UNIVERSITY OF VIRGINIA SCHOOL OF LAW, LAW & ECONOMIC RESEARCH WORKING PAPER No. 03-2 (2003). Available at: https://scholarship.law.columbia.edu/faculty_scholarship/1282

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UNIVERSITY OF VIRGINIA SCHOOL OF LAW
2003 Law and Economics Research Papers

*A Theory of Self-Enforcing Indefinite
Agreements*

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Working Paper No. 03-2
May 2003

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A THEORY OF SELF-ENFORCING INDEFINITE AGREEMENTS

*Robert E. Scott**

INTRODUCTION

All contracts are incomplete. There are, after all, infinite states of the world and the capacities of contracting parties to condition their future performance on each possible state are finite.¹ But incomplete contracts differ along several key dimensions. Many contracts are incomplete because parties decline to condition performance on uncertain future states that they cannot observe or verify to courts.² In these cases, the incompleteness is exogenous to the contract; that is, the parties are incapable of efficiently contracting over measures of performance that cannot be verified.³ Other agreements, however, appear to be “deliberately” incomplete in

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¹Both transactions costs, broadly defined, and information asymmetries are formidable barriers to writing complete contingent contracts.

²The distinction between observable and verifiable information is analytically important in information economics, but both concepts remain somewhat imprecise. According to standard economic theory, a datum of information is “unobservable” if the other contracting party cannot perceive it. Buyers, for example, ordinarily cannot observe a seller’s production cost. A datum of information is “observable but not verifiable” if the other party can perceive it, but cannot prove the fact to a court or other third party at an acceptable cost. For example, an employer usually can know which employees sometimes shirk, but it would be expensive relative to the gains to prove to a court that a particular employee shirked 20% of the time. A datum of information thus is “verifiable” if a party both can observe it and prove its existence to a third party. Legal scholars understand, of course, that what can and cannot be proved to a court is often a function of factors other than the cost of producing evidence. See note – infra.

³Under modern law, these “open term” or relational contracts (where incompleteness is a function of asymmetric information or other factors exogenous to the contract) are routinely enforced by courts. There is a rich literature analyzing the optimal contractual response to uncertainty and environmental complexity in these on-going relationships. A number of scholars have argued that parties write such contracts when uncertainty makes it costly to negotiate fixed-performance terms, or because they better respond to problems of moral hazard. See e.g., Mark P. Gergen, *The Use of Open Terms in Contract*, 92 Colum. L. Rev. 997, 1007-09 (1992); Charles J. Goetz & Robert E. Scott, *Principles of Relational Contracts*, 67 Va. L. Rev. 1089, 1092 (1981); Victor P. Goldberg, *Price Adjustment in Long-Term Contracts*, 1985 Wis. L. Rev. 527, 531-33; Victor P. Goldberg & John R. Erickson, *Quantity and Price Adjustments in Long-Term Contracts: A Case Study of Petroleum Coke*, 30 J. L. & Econ. 369, 370 (1987); Paul L. Joskow, *Asset Specificity and the Structure of Vertical Relationships: Empirical Evidence*, 4 J. I. Econ. & Org. 95, 101 (1988). All of these various explanations turn, at bottom, on the fact that the relevant measures of performance are too costly to specify or are not verifiable. In this article, I put this category of contract aside and focus on

the sense that parties decline to condition performance on available, verifiable measures that could be specified in the contract at relatively low cost. Thus, incompleteness is endogenous to these agreements suggesting that the parties had other reasons for leaving the terms in question unspecified.⁴

Traditional contract law doctrine appears to track this distinction. One of the core principles of contract law is the requirement of definiteness. An agreement will not be enforced as a contract if it is uncertain and indefinite in its material terms.⁵ A contract, that is, must be sufficiently complete such that a court is able to determine the fact of breach and provide an appropriate remedy. If so, the doctrine directs courts to enforce the agreement by filling contractual gaps where necessary.⁶ Otherwise, the doctrine directs courts to deny enforcement and leave the losses to lie where they fall.⁷ It is widely believed, however, that the indefiniteness doctrine is largely ignored by contemporary courts. Conventional wisdom holds that courts should (and do) strive whenever possible to fill contractual gaps with general standards of

agreements where the parties have declined to condition performance on verifiable measures that were available at low cost.

⁴Among the reasons for leaving verifiable terms unspecified are high transaction costs, inadvertence or, as I suggest in this paper, an intent to use self-enforcing mechanisms such as reciprocity. For discussion see 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, 1071-72 (2002). The argument here--that courts can (and do) make judgments about how aggressively to fill contractual gaps based on the reasons why the agreement is incomplete-- is similar in some respects to the argument advanced by Eggleston, Posner and Zeckhauser that courts should interpret simple contracts either strictly or liberally based on the reasons for contractual simplicity. See Karen Eggleston, Eric Posner and Richard Zeckhauser, *The Design and Interpretation of Contracts: Why Complexity Matters*, 95 N.W. U. L. Rev. 91 (2000).

⁵See e.g., *Varney v. Ditmars*, 217 N.Y. 223, 111 N.E. 822 (1916).

⁶See e.g., Restatement (Second) of Contracts § 33(2); Uniform Commercial Code § 2-204 (3).

⁷This general proposition is qualified to the extent that the agreement has been partially executed by the promisee. In that case, general principles of restitution may support a recovery on the basis of quantum meruit. See Restatement (Second) §34(3), Comment d. Moreover, a few courts have granted relief on the basis of promissory estoppel where the facts show a specific inducement by the promisor. See, e.g., *Wheeler v. White*, 398 S.W. 2d 93, 97 (Tex. 1965).

reasonableness and good faith.⁸

But the conventional wisdom is misleading. A study of the contemporary case law on indefinite contracts reveals some striking facts. First, there is a surprisingly high volume of litigation. Second, despite the perceived influence of the Uniform Commercial Code and despite widespread academic support for more judicial gap-filling, the indefiniteness doctrine lives on in the common law of contract. In literally dozens of cases, American courts dismiss claims for breach of contract on the grounds of indefiniteness, often without granting any relief to the disappointed promisee.⁹

This evidence raises a fundamental question: Why do parties write deliberately incomplete agreements in the shadow of a robust indefiniteness doctrine? One answer is that these agreements may be self-enforcing. If the parties themselves can create efficient extra-legal mechanisms for coping with problems of hidden action and hidden information, then they would be indifferent to legal enforcement. Scholars have long understood that reputation and the discipline of repeated interactions are efficient means of self-enforcement.¹⁰ But these conditions for self-enforcement are stringent. Reputations work best in markets for homogeneous goods or

⁸See e.g., 1 ARTHUR CORBIN, CORBIN ON CONTRACTS § 95 AT 400 (1963):

The modern trend of the law is to favor the enforcement of contracts, to lean against their enforceability because of uncertainty, and to carry out the intentions of the parties if this can feasibly be done. ...[T]he court should not frustrate [the parties] intentions if it is possible to reach a fair and just result, even though this requires a choice among conflicting meanings and the filling of some gaps that the parties have left.

See also, Restatement (Second) of Contracts § 33, Comment a, and cases cited in note ----*infra*. In essence, the disagreement between the common law and contemporary approaches concerns the presumption that should govern in cases of incompleteness. Everyone agrees that the evidence must support a finding that the promisor intended to be bound. The disagreement concerns just how pro-active a court should be in supplying terms the absence of which would preclude giving a remedy. See TAN *supra*.

⁹See cases collected in Table 2 *infra*. The frequency of dismissals on the grounds of indefiniteness is inconsistent with conventional assumptions, but the failure to grant relief in the face of claims of reliance is even more striking. See note —*infra*.

¹⁰See Benjamin Klein, *Why Hold-Ups Occur: The Self-Enforcing Range of Contractual Relationships*, 34 *Econ. Inquiry* 444 (1996); and Robert E. Scott, *Conflict and Cooperation in Long-Term Contracts*, 75 *Cal. L. Rev.* 2005, 2039-2050 (1987).

in ethnically homogeneous communities,¹¹ and parties in on-going relationships face end game dilemmas. Indeed, most of the recently litigated cases do not appear to be self-enforcing in the traditional sense. Rather, most are isolated transactions in heterogeneous markets between strangers trading at arms length.¹²

Recent work in experimental economics suggests, however, that the domain of self-enforcing contracts may be considerably larger than has been conventionally understood. A robust result of these experiments is that a significant fraction of individuals behave *as if* reciprocity were an important motivation (even in isolated interactions with strangers) while a comparable fraction react as if motivated entirely by self interest. The evidence that in any population roughly half behave fairly and half behave selfishly provides the foundation for a theory of fairness that is grounded in the human motivation to reciprocate.¹³ This theory predicts that self-enforcement of deliberately incomplete contracts between strangers is more efficient than the alternative of more complete, legally enforceable agreements.

A theory of reciprocal fairness also provides a fresh explanation for the prevalence of informal agreements to agree despite judicial decisions denying enforcement to such agreements. These “comfort agreements” can be understood as a means of screening potential trading partners by which the parties gain valuable information about each other’s preferences for reciprocity. In addition, the potency of reciprocal fairness as a method of self-enforcement explains (and justifies) the resiliency of the common law indefiniteness doctrine in the face of a contemporary academic consensus favoring the expansion of legal liability. The experimental evidence suggests that transforming an informal, indefinite agreement into a legally binding obligation is often counterproductive; legal liability can increase moral hazard and it may also

¹¹See Janet Landa, *A Theory of the Ethnically Homogenous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. Legal Stud. 349 (1981).

¹²See TAN *infra*.

¹³ These experiments do not show that individuals have an intrinsic motivation to be fair. Rather they show that individuals engage in voluntary cooperation in contexts where pure self-interest would dictate noncooperative actions. The source of this behavior remains an open question. See TAN *infra*.

“crowd out” the parties’ self-enforcing mechanisms.

In this Article, I argue that the observed preference for reciprocal fairness offers the best available solution to the puzzle of deliberately incomplete agreements. Part I begins the analysis by evaluating the large and hitherto neglected body of cases where courts decline to enforce agreements on the grounds of indefiniteness. In many of these cases the parties appear to discard verifiable information that they might have used to write more complete, legally enforceable contracts. In Part II, I examine recent experimental evidence supporting a theory of reciprocal fairness; a theory that greatly expands the domain of self-enforcing agreements. Part III then turns to the central questions that underlie the legal regulation of indefinite agreements: Why do parties write intentionally indefinite agreements? And, can the courts’ refusal to legally enforce these agreements be justified? Fairness theory better explains the behavior of contracting parties as well as the durability of the indefiniteness doctrine which, by narrowing the domain of legal liability, preserves space for parties to exploit opportunities to reciprocate.

I conclude that the robust experimental evidence of self-enforcing reciprocity undermines the conventional assumption that both fairness and efficiency are best served by expanding the domain of contractual liability. The error in the conventional analysis has been the instinct to generalize from litigated cases, where self-enforcement has broken down. But these cases provide little guidance for how the law should treat the far greater number of instances where reciprocity may well be the more efficient mechanism for making credible promises.

I. RETHINKING THE LAW OF INDEFINITE CONTRACTS

A. The Goals of Legal Regulation

The first objective of contract law is to resolve a basic sorting problem. Our legal system does not enforce all promises, even those that were seriously intended. Thus, a normative theory of contract law must explain why certain bargained-for promises deserve a presumption of

enforceability in the first place. One response is that the freedom to exchange entitlements presupposes the freedom to contract for such an exchange. Both freedoms are supported by norms of autonomy and efficiency. Parties who are denied either the freedom to contract or the freedom to exchange entitlements suffer unnecessary constraints on their choices, constraints that undermine the value of the entitlements themselves. Thus, the normative claim is that the law, by standing behind a present promise to exchange entitlements in the future, offers individuals more choices than they would otherwise enjoy and, other things being equal, more choice is better than less.¹⁴

But this argument assumes too much. It assumes, for example, that promises are not credible absent legal enforcement. Yet we know that contracts often are performed even in the absence of any legal sanctions for breach. Contracts may be “self-enforcing” in two senses.¹⁵ First, where the parties contemplate making a series of contracts, neither party would breach an early contract if the gains for the breacher were lower than the expected returns from future contracts that would be thereby sacrificed. Second, neither party will breach if the gains from breach are exceeded by the reputational costs of a broken promise. Both of these familiar mechanisms for self-enforcement suffer from significant constraints, however. On-going relationships inevitably come to an end and thus all repeated interactions are subject to a familiar end-game problem. Indeed, in the limiting case, the anticipation of the last transaction may cause the entire cooperative pattern to unravel.¹⁶ Reputation, in turn, will only work to make promissory commitments credible if other contracting parties can conveniently learn about the reasons why any particular transaction broke down. Reputations are difficult to establish in large economies in which particular contracting parties are often anonymous to most market

¹⁴Robert E. Scott & William J. Stuntz, *Plea Bargaining as Contract*, 101 Yale L. J. 1909, 1913 (1992).

¹⁵ There is an extensive literature on self-enforcing contracts. See, e.g., Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. Pol. Econ. 615,617 (1981); L.G. Telser, *A Theory of Self-Enforcing Agreements*, 53 J. Bus. 27 (1980); Oliver E. Williamson, *Assessing Contract*, 1 J. L. Econ. & Org. 177, 201-02 (1985).

¹⁶Scott, *Conflict and Cooperation in Long-Term Contracts*, supra note — at 2033.

participants.¹⁷ Thus, it is generally assumed that many (if not most) contracts fall outside the self-enforcing range.

Legal rules matter, therefore, where reputation and repeat dealings do not or cannot constrain the incentive to breach. In such an environment, legal enforcement is necessary to ensure performance.¹⁸ The decision to enforce a contract legally raises a set of subsidiary questions: What is the proper domain of freedom of contract? Within that domain, what is the proper role of the state in interpreting the meaning of incomplete contracts?¹⁹ Much recent scholarship has focused on one or the other of these subsidiary questions, but too little attention has been directed to the initial sorting question and to understanding the line between informal, self-enforcing agreements and legally enforceable contracts. These two domains are policed principally by the doctrine of indefiniteness.

B. Indefinite Agreements at Common Law

One of the core principles of the common law of contract is that the promises of parties to a legally enforceable contract must be certain and definite such that their intention may be

¹⁷ Reputations may work best in small trading communities, especially those with ethnically homogenous members, where everything that happens soon becomes common knowledge, and boycotts of bad actors are convenient to enforce. See Janet Landa, *A Theory of the Ethnically Homogenous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. Legal Stud. 349 (1981); Avner Grief, *Informal Contract Enforcement: Lessons from Medieval Trade* in 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND LAW 287 (Peter Newman, ed. 1998). Reputational sanctions also can be effective in industries that can establish trade associations; the associations become a form of collective memory regarding the contracting behavior of their members. See Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation through Rules, Norms and Institutions*, 99 Mich. L. Rev. 1724 (2001); same author, *Merchant Law in a Merchant Court: Rethinking the Code's Search for Immanent Business Norms*, 144 U. Pa. L. Rev. 1765 (1996).

¹⁸ Legal enforcement is necessary on social welfare grounds in at least two paradigmatic cases: in volatile markets where a party's failure to perform could threaten its partner's survival; and where the contractual surplus would be maximized if one or both of the parties made relation-specific investments. See Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 Yale L. J. — (2003).

¹⁹ The freedom of contract question focuses on the set of mandatory rules that limit the enforcement of certain contracts on either substantive policy grounds or because of defects in the bargaining process. Enforcement of contracts within that domain then requires both a theory of interpretation that maps from the syntactic content of the parties writing to the writings legal implications as well as a set of efficient default rules for those cases where contracting costs may have prevented the parties from solving their contracting problems themselves. For discussion, see Robert E. Scott, *The Rise and Fall of Article 2*, 62 La. L. Rev. 1009, 1016-1022 (2002).

ascertained with a reasonable degree of certainty. In the celebrated case of *Varney v. Ditmars*, the New York Court of Appeals declined to enforce an agreement by an architect to give his draftsman “a fair share of the profits” in exchange for a greater effort on some pressing projects.²⁰ The court held that such an agreement was not only uncertain, but “is necessarily affected by so many other facts that are in themselves indefinite and uncertain that the intention of the parties is pure conjecture....*Such a executory contract must rest for performance upon the honor and good faith of the parties making it.*[emphasis added].”²¹

An earlier New York case, *Macintosh v. Thompson*, further illustrates the kind of agreement that was found unenforceable under the common law rule.²² In *Macintosh*, the plaintiff sued to recover compensation in addition to a stated salary which had already been paid. He claimed that while he was employed by the defendants, he informed them that he intended to quit unless he was given an increase in salary. In response, one of the defendants told him that they would make it worth his while if he would stay on, promising to give him a share of the profits on certain buildings that they were then constructing. When the plaintiff asked what would be the amount of the bonus, he was told, “you can depend on me; I will see that you get a satisfactory amount.” The court held that the arrangement was too indefinite to form the basis of any obligation on the part of the defendant.²³

This common law rule was not only applied to cases such as *Varney* and *Macintosh*, but also extended to agreements where essential terms were explicitly left to further negotiation. For example, in *Petze v. Morse Dry Dock & Repair Co.*, the New York court held that an agreement providing that “the method of accounting to determine the net distributable profits is to be agreed

²⁰217 N.Y. 223, 111N.E. 822 (1916).

²¹Id. At 225.

²² 58 App. Div. 25, 68 N.Y.S. 492.

²³ Id.

upon later” was unenforceable under the indefiniteness rule.²⁴ Courts thereafter consistently held that such “agreements to agree” were unenforceable so long any essential term was open to negotiation.²⁵

Even at common law, the indefiniteness doctrine was subject to several qualifications. First, indefiniteness would not prevent a recovery in quantum meruit in the event one party to an informal agreement performed in reasonable reliance on its terms, even though they were vague, indefinite and uncertain.²⁶ Second, the question of whether the promise of a “fair” share of the profits or a “reasonable” compensation was too indefinite depended on the subject matter of the agreement. In sales of goods, for example, common law courts held that the words “fair and reasonable value” were a synonym for “market value” and thus a definite promise to pay the fair market value of goods was inferred from the express agreement of the parties.²⁷ Indeed, the common law courts went farther in the case of sales contracts, holding that even where a fixed price or other consideration was not specified in the agreement, it was presumed that a reasonable price was intended. Common law courts showed no reluctance, therefore, in filling such gaps in sales contracts on the view that “such contracts are common, and when there is nothing to limit or prevent an implication as to the price, they are binding obligations.”²⁸

The rationale of the common law indefiniteness doctrine, then, was grounded in the presumed intentions of the parties. But where the parties did not make their intentions clear, the common law rule presumed that the failure to reach agreement on material terms, where no terms could be objectively supplied, implied an intention not to be legally bound. Thus, under the common law rule the question of intent was addressed indirectly, by looking at the extent to

²⁴125 App.Div. 267, 109 N.Y.S. 328, 331.

²⁵ ROBERT E. SCOTT & JODY S. KRAUS, CONTRACT LAW AND THEORY 34-44, 322-325 (3D ED. 2002).

²⁶See e.g., *Bragdon v. Shapiro*, 77A.2d 598 (Me. 1951).

²⁷*Varney v. Ditmars*, supra note — at 225.

²⁸*Id.*

which material terms were left unspecified by the parties. If the court found that the terms were sufficiently complete and definite, it would infer from that fact the intent to contract; if not, the court would infer that the parties did not intend to be bound.

C. The Modern View on Indefiniteness and Open Terms

The drafters of the Uniform Commercial Code followed the line of cases that held that price terms in sales contracts could be supplied from evidence of market prices. Thus, UCC §2-305 provides that the parties can conclude a sales contract even though the price is not specified or they agree to agree on a price and are subsequently unable to agree.²⁹ But the Code goes beyond the common law in explicitly authorizing an expansive role for courts in filling open terms in otherwise incomplete agreements.³⁰ As I noted above, the justification for the common law rule was that it honored the intent of the parties. That is also the justification for UCC § 2-204: it honors the parties' intent to be bound. The difference, then, is not the purpose of the rule but the presumption that follows from agreements with open or indefinite terms. The UCC shifts from the bright-line rule of the common law to a broad standard. Under the UCC standard, a court is asked to focus on the underlying question of intent directly, and is encouraged to infer that intent despite the existence of open or indefinite terms. That, of course, is just what many courts have done.³¹

The standard-based approach of the UCC, now followed as well by the Restatement,³² is justified primarily by the defects of the common law bright-line rule: in many contracting contexts a rule that determines intent by focusing on missing terms is seriously over-inclusive.

²⁹UCC § 2-305 (2002).

³⁰UCC § 2-204 (2002) provides that “even though one or more terms is left open a contract for sale does not fail for indefiniteness if the parties have intended to make a contract and there is a reasonably certain basis for giving an appropriate remedy.” The Official Comment provides that “the fact that one or more terms are left to be agreed upon [is not] of itself enough to defeat an otherwise adequate agreement. Rather commercial standards...are intended to be applied, this act making provision elsewhere for missing terms needed for performance, open price, remedies and the like.” Id.

³¹SCOTT & KRAUS, *supra* note — at 315-322.

³²Restatement (Second) of Contracts §33.

All contracts are incomplete and thus the fact of incompleteness per se does not necessarily imply an intention to avoid legal enforcement. Incompleteness may be caused by many factors including the desire for flexibility and the unwillingness of parties to condition future performance on non-observable or non-verifiable measures of performance. Thus, an intention to be bound to terms reasonably supplied by courts may often be the best inference to be drawn from relational contracts that are incomplete owing to such exogenous factors.³³

But, at least implicitly, the modern approach goes even farther and shifts the presumption toward enforcement whenever terms are left open or are indefinite. Professor Corbin perhaps best expressed this view:

The modern trend of the law is to favor the enforcement of contracts, to lean against their unenforceability because of uncertainty, and to carry out the intentions of the parties if this can feasibly be done.... The usual and reasonable terms found in similar contracts can be looked to, unexpressed provisions of the contract may be inferred from the writing, external facts may be relied upon and custom and usage may be resorted to in an effort to supply a deficiency....³⁴

The contemporary presumption toward filling gaps in incomplete contracts has led many to assume that the common law indefiniteness doctrine is no longer a serious impediment to legal

³³See note 3 supra. To be sure, intention to be legally bound is not the only inference to be drawn from exogenous incompleteness. Another possibility is that the parties intend to renegotiate ex post once the uncertainty is removed.

³⁴1 ARTHUR CORBIN, CORBIN ON CONTRACTS § 95 AT 400 (1963). See also, Restatement (Second) of Contracts § 33, Comment a. (“The actions of the parties may show conclusively that they have intended to conclude a bargain, even though one or more terms are missing or are left to be agreed upon. In such cases courts endeavor, if possible, to attach a sufficiently definite meaning to the contract.”). Justice Cardozo put the contemporary presumption in favor of enforcement this way: “Indefiniteness must reach the point where construction becomes impossible.” *Heyman Cohen & Sons v. Lurie Woolen Co.*, 133 N.E. 370, 371 (N.Y. 1921). See also *Novelly Oil Co. v. Mathy Constr. Co.*, 433 N.W. 2d 628, 629 (Wis. 1988) (describing the “liberality” of the indefiniteness principle); *Denver D. Darling, Inc., v. Controlled Environments Construction, Inc.*, 89 Cal.App. 4th 1221, 108 Cal. Rptr. 2d 213 (2001) (same); *Bethlehem Steel Corp. v. Litton Indus., Inc.*, 468 A.2d 748,766 (Pa. Super. Ct. 1983)(same).

enforcement.³⁵ But, surprisingly, the nearly universal acceptance of the judicial practice of supplying open terms for relational contracts has not slowed the pace of litigation over indefinite agreements. Moreover, even when these agreements are assessed under the contemporary standard, many fail to pass muster. Even the most casual review of judicial decisions over the past twenty years finds courts invoking the indefiniteness doctrine to refuse enforcement of promises to “provide future financing,”³⁶ to send a seller “some work,”³⁷ to pay “costs and expenses for a sumptuous living and maintenance,”³⁸ to forgo collection “so long as [debtor] makes progress toward profitability,”³⁹ to “employ seller to go on the road,”⁴⁰ to provide “loan supervision information,”⁴¹ to sell property at a “price to be determined in accordance with applicable rules and regulations,”⁴² and to sell property at “the appraised bid as established by three disinterested persons.”⁴³

In sum, the law of indefiniteness is not a story of a traditional common law rule for limiting legal liability being inexorably overturned by a contemporary preference for filling gaps with broad standards of good faith, reasonableness and the like. Evidence that courts continue to sort agreements that lack material terms on the basis of the indefiniteness doctrine raises several key questions: Is this simply a further example of the tension between common law formalism

³⁵See e.g., Mark P. Gergen, *The Use of Open Terms in Contract*, 92 Colum. L. Rev. 997, 1062 (1992) (providing arguments against “the now (happily) discredited doctrine that courts ought not to enforce indefinite contracts....”).

³⁶Union State Bank v. Woell, 434 N.W. 2d 712 (N.D. 1989).

³⁷Roy v. Danis, 553 A.2d 663 (Me 1989).

³⁸Trimmer v. Van Bomel, 107 Misc. 2d 201, 434 N.Y.S. 2d 82 (1980).

³⁹Champaign National Bank v. Landers Seed Co., Inc., 165 Ill. App.3d 1090, 116 Ill. Dec. 742, 519 N.E.2d 957 (1988).

⁴⁰Roy v. Danis, 553 A.2d 663 (Me 1989).

⁴¹University National Bank v. Ernst & Whinney, 773 S.W.2d 707 (Tex.App. 1989).

⁴²Cobble Hill Nursing Home, Inc. v. Henry and Warren, 74 N.Y. 2d 475, 548 N.E. 2d 203 (1989).

⁴³Kane v. McDermott, 191 Ill.App.3d 212, 547 N.E.2d 708 (1989).

and Code contextualism; a tension that is clearly evident, for example in widely disparate theories of contractual interpretation?⁴⁴ If not, what are the factors that determine when a contract is likely to be held unenforceable owing to indefiniteness, and how do these agreements differ from those where courts routinely fill gaps with open terms? These questions cannot be answered so long as the patterns of contemporary indefiniteness litigation are examined casually and unsystematically. In the following discussion, therefore, I report the results of a systematic examination of the indefiniteness case law and undertake a functional analysis of how courts do, in fact, sort between enforceable and unenforceable agreements.

D. What Do Courts Actually Do?

In order to create a data base for evaluating the enforcement decisions of contemporary American courts, I began with a sample of all litigated cases between 1998 and 2002. A LEXIS search for cases of the past four years that invoke indefiniteness in close conjunction with unenforceable contracts, returned 238 hits. That number was confirmed by a parallel WestLaw key number search under the contract law doctrine of definiteness or certainty. A detailed examination of 137 cases randomly selected from this base pool revealed forty-eight cases where the issue of indefiniteness was only peripherally relevant to the outcome. In many of these cases, the issue was raised in the context of preliminary negotiations where the defendant claimed that the representation relied on by the plaintiff was insufficiently definite to be characterized as an offer or an acceptance. In these instances, therefore, the underlying question was whether the parties had reached an agreement at all, rather than the further question: Assuming the parties have concluded an agreement, is that agreement legally enforceable as a contract?⁴⁵

⁴⁴ See, for example, the current split between courts that apply a “hard” parol evidence rule and a strong plain meaning rule and courts following the “soft” parol evidence and contextual meaning of the UCC. Eric Posner, *The Parol Evidence Rule, the Plain Meaning Rule, and the Principles of Contractual Interpretation*, 146 U. Pa. L. Rev. 533 (1998).

⁴⁵The issue of precontractual liability raises interesting but quite different questions from those discussed in this paper. For those reasons, I leave aside the issues of precontractual reliance and the related question of when, if ever, liability should attach *prior* to the conclusion of an agreement (albeit an indefinite one). For the best doctrinal analysis of this question, see E. Allan Farnsworth, *Precontractual Liability and Preliminary Agreements: Fair Dealing and Failed Negotiations*, 87 Colum. L. Rev. 217 (1987). For recent law and economic analyses, see Avery Katz, *When Should the Offer Stick? The Economics of Promissory Estoppel in Preliminary Negotiations*, 105 Yale L. J. 1249 (1993); Richard Craswell, *Offer, Acceptance, and Efficient Reliance*, 48 Stan. L. Rev. 481 (1996); Jason

The remaining eighty-nine cases directly raise the issue of enforcement.⁴⁶ In thirty-four cases the court enforced the contract despite the defendant's claim that the agreement was indefinite. In the remaining fifty-five cases the court denied enforcement, despite the finding that the parties had concluded an agreement, on the grounds that the agreement was too indefinite and uncertain and thus was legally unenforceable as a contract.⁴⁷ One hypothesis that might explain the different results is that those courts enforcing allegedly indefinite agreements are following the trend of the UCC and the Second Restatement, while the larger number of courts that deny enforcement are adhering to the traditional common law view.⁴⁸ This hypothesis implies 1) that the cases granting enforcement would include a larger number of Code cases, and 2) that non-Code cases would divide between states following the traditional view and those adopting the modern approach to open terms.

Neither of these empirical conditions is confirmed by the data. First, only one of the cases granting enforcement involved the sale of goods under the UCC. Indeed, in only three instances did a court cite with approval the Code approach to open terms,⁴⁹ and the Second

Scott Johnston, *Communication and Courtship: Cheap Talk Economics and the Law of Contract Formation*, 85 Va.L. Rev. 385 (1999).

⁴⁶The cases are coded and tabulated in Tables 1 & 2 infra at ----.

⁴⁷It is equally noteworthy that, of the fifty-five cases denying enforcement on the grounds of uncertainty, only two authorized restitutionary relief for the plaintiff. See *Bergman v. DeJulio*, 826 So. 2d 500 (Fla. App. 2002) (plaintiff had viable quantum meruit claim against defendant but could not recover damages on his claim); *Allied Erecting & Dismantling co., Inc. v. UNECO Realty co.*, 765 N.E. 2d 420 (2001) (same). The conventional view is that a promisee can recover in restitution for partial performance of an indefinite agreement. Thus, for example, courts have permitted an employee to recover in quantum meruit for the value of extra efforts induced by his employer's promise to share the resulting profits. See, e.g., *Bragdon v. Shapiro*, 77A.2d 598 (Me. 1951); E. ALLAN FARNSWORTH, *CONTRACTS* §3.30 (3D ED. 1999). But where both the promise to perform additional work as well as the promise to provide a "bonus" are indefinite, the cases from the sample deny relief altogether. See Table 2 infra.

⁴⁸ See Note, *Contract with Open or Missing Terms Under the Uniform Commercial Code and the Common Law: A Proposal for Unification*, 103 Colum. L. Rev. 50, 52-53 (2003) (framing the divergent results in the cases as a jurisdictional divide in which "some jurisdictions apply the traditional common law doctrine to hold such contracts invalid...while others apply the UCC analysis to hold such contracts enforceable.")

⁴⁹See e.g., *American Laminates, Inc. v. J.S. Latta Co.*, 980 S.W. 2d 12 (Mo. App. 1998); *Willow Funding Co., L.P. v. Grencom Associates*, 779 A.2d 174 (Conn. App. 2001)(citing UCC § 2-204(3)). One possible explanation for the absence of Code cases in the sample is that the Code rule on open terms, especially price terms, is sufficiently clear and well-established that parties decline to litigate "settled" law.

Restatement view was the basis for decision in just four others.⁵⁰ Moreover, the division between enforcement and non-enforcement is not correlated with whether or not the state has a traditional or modern view on contractual liability. In two states, California and Pennsylvania, the courts acknowledged a presumption favoring enforcement and filling gaps whenever possible. But notwithstanding the presumption, courts in those states divided on the question of whether the agreement at issue was enforceable. In the remaining thirty-two states, the courts at least formally applied the traditional indefiniteness doctrine, yet the cases divided roughly two to one between non-enforcement and enforcement. In eight of those states—Connecticut, Maryland, New York, Illinois, Ohio, Georgia, Tennessee and Texas-- appellate courts reached different enforcement decisions on different facts.⁵¹ Taken as a whole, therefore, the data tend to refute the conventional academic wisdom that the legal standard *by itself* influences the enforcement choice.⁵²

Rather, the cases drawn from the sample show that courts, in general, focus on whether the parties have fully exploited verifiable information in concluding their agreements.⁵³ Where the

⁵⁰See, e.g., *Davidson v. Holtzman*, 47 S.W.3d 445 (Tenn. App. 2001).

⁵¹ New York is perhaps the most influential state in the sample. Sixteen indefiniteness cases came out of New York courts. Enforcement was denied in thirteen instances and granted in three.

⁵²*Cf* Note, *supra* note 48 at 52-53.

⁵³ In coding the nature of the information available to the parties to these agreements, I use a richer conception of verifiability than is common to formal contract theory. I define a measure of performance as verifiable if competent legal counsel is prepared to opine, *ex ante*, that the failure of the other party to perform can be demonstrated to a court with a positive probability of success. Relevant to this prediction is not only the cost of producing evidence but also the relationship between the legal standard of proof and the management of evidence and the relative complexity and interdependence of the measures of performance in the contract. This definition of verifiability raises a further complication that I sidestep in this paper. This paper, and most economic theory, treat verifiability as an exogenous variable. But, in fact, whether a measure of performance is verifiable or not is subject to some party control. Thus, the motivation for a particular contract term may be the ability of the moving party to manipulate the proof necessary to establish the fact in question. See e.g., Franklin Allen & Douglas Gale, *Measurement Distortion and Missing Contingencies in Optimal Contracts*, 2 *Economic Theory* 1 (1992). For a discussion of the relationship between optimal contract design and the strategic management of evidence, see Chris Sanchirico & George G. Triantis, *Evidence Fabrication, Verifiability and Contract Design* (mimeo 2002).

contract is incomplete owing to uncertain future states that are not observable or not verifiable, the courts will typically enforce the contract by filling the resulting gaps. In that sense, the disputed performance is not “contractible” and the incompleteness is thus exogenous to the contract. But if the parties appear to have discarded verifiable information that they might have used at relatively low cost to condition performance, the courts decline to enforce the agreement legally. Here the failure to use available measures of performance suggests either that the parties’ action was the result of inadvertence or that the agreement was *deliberately* indefinite.

1. Legally Enforceable Incompleteness

In thirty-four cases in the sample the courts enforced contracts notwithstanding the claim of indefiniteness.⁵⁴ The legally enforceable agreements ranged across a variety of contexts from business development and marketing⁵⁵ to investment contracts,⁵⁶ and from distributorship agreements⁵⁷ to joint ventures.⁵⁸ In each of these contexts, the parties faced the canonical “contracting problem” of ensuring both efficient *ex ante* investment and efficient *ex post* trade in the subject matter of the contract.⁵⁹ In each case, however, the parties negotiated over complex transactions and were forced to cope with problems of hidden action and hidden information. Thus, high transactions costs as well as problems of asymmetric information⁶⁰ would likely

⁵⁴ See Table 1 *infra*.

⁵⁵ *Quadron Software International Corporation v. Plotseneder*, 256 Ga.App. 284, 568 S.E.2d 178 (2002).

⁵⁶ *Giannaris v. C.Y. Cheng*, 219 F. Supp.2d 687 (D. Md. 2002).

⁵⁷ *Krantz v. BT Visual Images, LLC*, 89 Cal. App. 4th 164, 107 Cal. Rptr. 2d 209 (2001).

⁵⁸ *DeBoer Structures (U.S.A.) Inc. v. Shaffer Tent and Awning Co.*, 233 F. Supp.2d 934 (2002).

⁵⁹ Parties invest efficiently when they take actions that maximize their deal’s expected surplus. Parties trade efficiently when, and only when, the value of the exchanged performance to the buyer exceeds the cost of performance to the seller. Most would agree that contract law should attempt to facilitate efficient investment and trade.

⁶⁰ Information is asymmetric when it is either unobservable or unverifiable. For a concise but moderately technical explanation of this phenomenon, see Alan Schwartz, *Incomplete Contracts* in 2 *The New Palgrave Dictionary of Economics and the Law* 277-83 (1998);. See also Ian Ayres & Robert Gertner, *Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules*, 101 *Yale L.J.* 729 (1992). For formal analyses of the effects of asymmetric information on incomplete contracting, see Hermalin & Katz, *Judicial Modification of Contracts*

have prevented the parties to these contracts from writing complete, first-best efficient contracts. When these conditions prevent parties from creating a term, the resulting contract is incomplete but may nevertheless be second-best efficient.

To understand the reasoning that underlies this conclusion, consider a salient example, *Krantz v. BT Visual Images*.⁶¹ In *Krantz*, the plaintiff and the defendants were in the business of marketing telecommunications systems. Plaintiff alleged that he and the defendants had entered into a “reseller agreement” by which defendant appointed plaintiff its distributor for San Francisco and Marin County with the right to sell its video conferencing equipment and other products. Thereafter, plaintiff and defendant signed a “teaming agreement” in which they agreed to submit a joint bid for Kaiser Permanente’s video conferencing business both within and outside the Bay area. To enhance the chances of getting the contract with Kaiser, plaintiff agreed to reduce his commission on the sale of defendant’s products. In exchange, the parties agreed that, if their joint bid was successful, plaintiff would receive an increased profit margin on future business from Kaiser and the parties would share jointly in all subsequent business with Kaiser.⁶² The defendant ignored the teaming agreement and submitted its bid to Kaiser independently. Plaintiff sued for breach of contract and sought an accounting and recovery of lost profits. The California Court of Appeal reversed the trial court’s grant of summary judgment for the defendant on the grounds of indefiniteness. The court held that, while one “might agree that unstated future margins and price terms are indefinite, *they were necessarily so*: it remained to be seen whether the joint proposal was accepted.”⁶³

Between Sophisticated Parties: A More Complete View of Incomplete Contracts and their Breach, 9 J.L.Econ.& Org. 98 (1993); J. Thomas & T. Worrall, *Income Fluctuations and Asymmetric Information*, 51 J. Econ. Theory 367 (1991); B. Bernheim & M. Whinston, *Incomplete Contracts and Strategic Ambiguity*, 88 Am. Econ. Rev. 902 (1998).

⁶¹See 107 Cal. Rptr. 2d 209 (2001).

⁶²Specifically, the parties agreed to negotiate precise profit margins and product pricing once the bid was accepted. Id. at —.

⁶³107 Cal.Rptr. 2d at 218.

The court in *Krantz* identified the key variable that triggers a judicial decision to enforce: the parties wrote as complete an agreement as they could under the circumstances. The information that they discarded involved the relationship between the plaintiff's efforts in servicing Kaiser under the contract and the defendant's investment in customized components suitable for Kaiser. The interaction between these inputs was complex. Both of these interactive inputs were essential ingredients to the price of the product to Kaiser and to the resulting profits available for division. Thus, the complexity of the relationship would have increased the transactions costs of specifying profit margins more concretely. Moreover, neither the plaintiff's marketing efforts nor the quality of the defendant's specialized investment could be verified to a court. Selecting a contract term that conditions on unverifiable information would have been a poor fit because it would create moral hazard. When a party cannot observe or verify the value of a relevant economic parameter, such as effort or quality, that party will reject a contract that conditions on that parameter because of the risk that the other party will behave strategically⁶⁴ Where the incompleteness is predominantly a function of environmental complexity or of asymmetries, the data show that courts regard the resulting contract as "obligationally complete" and thus legally enforceable.⁶⁵

2. Unenforceable Indefinite Agreements

In fifty-five of the sample cases, the appellate court refused to enforce the parties agreement on the grounds of indefiniteness.⁶⁶ In a handful of cases, the indefiniteness seemed clearly to be the product of inadvertence or carelessness on the part of the parties (or their

⁶⁴ Parties will write a more complete contract covering a specialized investment (such as the efforts of the plaintiff or the output of the defendant) when (i) they can specify clearly what standards the investment is to meet; (ii) the investment will meet those standards if undertaken correctly; and (iii) a party can prove to a court that the product of the investment did or did not satisfy the contractual standards. *Krantz* shows that these conditions are sometimes hard to meet. Contracts that compensate a seller on the basis of the quality of the end-product or an agent on the basis of the value of her efforts or can create efficient incentives only when quality or effort are verifiable. See generally, Schwartz & Scott, *Contract Theory and the Limits of Contract Law*, supra note —.

⁶⁵ Ayres & Gertner, *Strategic Contractual Inefficiency*, supra note — at —.

⁶⁶ See Table 2 infra.

lawyers) in writing the contract.⁶⁷ But the bulk of the cases where courts denied enforcement to indefinite agreements cannot be understood in terms of careless omissions or an inadvertent failure to negotiate over conditions of performance that were otherwise verifiable. Rather, the facts support the hypothesis that the parties intentionally and deliberately concluded an agreement that was indefinite as to key terms that later resulted in litigation. Moreover, unlike the cases of exogenous incompleteness, in these instances the parties failed to incorporate in their agreement readily available, verifiable measures of performance. In sum, the parties to these agreements appear to prefer the indefinite agreement they concluded to the more explicit and verifiable alternative that they ignored.

Although there are some variations in the cases, two common factual patterns predominate. This first is the “indefinite bonus contract” such as the agreement at issue in *Smith v. Hammons*.⁶⁸ Smith entered into an agreement with Hammons Entertainment to produce and perform in a magic show. The parties agreed that Smith would be paid a stipulated salary of \$150,000 in return for using his creative efforts to “design, stage, perform and star in a magic and music show.” In addition, the agreement specified that if Smith faithfully performed his obligations Hammons would subsequently pay Smith a signing bonus as well as a share of the profits from the show. Hammons was disappointed with Smith’s efforts and fired him. Smith sued for his share of the bonus and lost profits. The court affirmed a summary judgment for Hammons, holding the bonus agreement too indefinite and thus unenforceable.

The second archetype is a variation on the same theme. Here, the parties enter into what is traditionally designated an “agreement to agree” and what we might term a “comfort

⁶⁷*Bulloch South, Inc. v. Gosai*, 250 Ga.App. 170, 550 S.E. 2d 750 (2001); *Strauss Paper Co, Inc., v. RSA Executive Search, Inc.*, 260 A.D.2d 750, 688 N.Y.S.2d 641 (1999); *The Don Webster Company, Inc. v. Indian Western Express, Inc.*, 161 F.Supp.2d 959 (2001); *Kostelnik, Exr., v. Helper*, 96 Ohio St. 3d 1, 770 N.E. 2d 58 (2002); *Zurich American Insurance Co. v. General Car & Truck Leasing System, Inc*, 2002 WL 317206637 (Ga. App. 2002).

⁶⁸63 S.W. 3d 320 (Mo.App.S.D. 2002). Eighteen cases in the sample are coded as “indefinite bonus contracts.” See Table 2 *infra*.

agreement.”⁶⁹ As an example, in *Hunt v. Coker*⁷⁰ the parties entered into an written agreement expressing their joint desire for Coker to sell and Hunt to buy Coker’s insurance agency. The document provided for a purchase date and set out several options for the purchase price, including 45% of the commissions that renew over five years, or 40 % of the commissions that renew over six years. The agreement provided that Hunt would consolidate his location with Coker as soon as possible with each party paying his own expenses until the date of sale. Subsequently, Hunt became unhappy with Coker’s work and informed him that the offer of sale would not be honored. Hunt sued for breach. The appellate court affirmed the decision of the trial court dismissing the suit on the grounds of indefiniteness. The purchase “options” were not true options since the parties never agreed that Hunt should have the right to choose among the designated alternatives and thus the parties never agreed on a stipulated price. Rather, the court found the agreement akin to an “agreement to agree” and thus unenforceable.

In the cases falling within each of these prototypes, the courts appear most influenced by the failure of the parties to agree on readily available, verifiable terms. A stipulated bonus for achieving specific performance standards could easily have been negotiated in *Hammons*.⁷¹ For

⁶⁹The analogy is to “comfort letters” that are typically issued by a parent company to a lending institution and are aimed at encouraging the lender to issue credit to a subsidiary. The letter seeks to assure the lender without the parent committing itself as a surety or a guarantor. For discussion, see Rene Sacasas & Don Wiesner, *Comfort Letters: The Legal and Business Implications*, 104 *Banking L. J.* 313 (1987); DiMatteo & Rene Sacasas, *Credit and Value Comfort Instruments: Crossing the Line from Assurance to Legally Significant Reliance and Toward a Theory of Enforceability*, 47 *Baylor L. Rev.* 357 (1995). Eleven of the sample cases are coded as “comfort agreements,” while four others were more formal letters of intent. See Table 2 *infra*.

⁷⁰741 So. 2d 1011 (Miss. App. 1999).

⁷¹See also *Larson v. Johnson*, 184 F. Supp. 2d 26 (D.Me. 2002). In 1995, Johnson asked Larson to supervise a construction project on his property in Maine. Larson was paid a monthly rate of \$6,700 per month based on the total estimated cost of the project, plus lodging, divided into monthly payments. After completing the project, Johnson was so pleased with the quality of the work and Larson’s effort that he gave Larsen a \$175,000 bonus for doing the job. Thereafter, Johnson permitted Larson to live on the property rent free in exchange for basic caretaking duties. Subsequently, in 1999, Johnson asked Larson to supervise a further project to construct a workshop on the property. Larson asked for the same rate (\$6,700 per month) as per the prior job. Johnson responded that he would “take care” of Larson if he would do the project and told him to “trust the Great Oracle” (meaning Johnson). Larson worked on the shop project in addition to his other duties for over nine months, but upon asking to be paid at the same rate as the earlier job (\$6,700 per month), Johnson fired him. The court held that the claim to a “bonus” was too indefinite but that Larson’s claim for wages at his earlier rate presented a jury question. In *Larsen*, just as in *Hammons*, the parties failed to exploit any number of commonly used terms to create an

example, the parties could have conditioned a fixed bonus on predetermined benchmarks or “deliverables” that are themselves verifiable and serve as proxies for the level of efforts requested by the promisor.⁷² Or, alternatively, the parties could have specified an advance against a percentage of the profits from the magic show as is common in many franchising and licensing contexts.⁷³ Similarly, in *Hunt* the parties could have chosen a single method of determining the purchase price of the agency or granted to one of the parties a real option to select among the alternative pricing formulae. In both cases, therefore, the parties’ failure to make the agreement sufficiently definite and thus legally binding seems to have been intentional and deliberate. In other words, the indefiniteness is endogenous to the contract, and the courts appear to infer from that fact that the parties either do not intend or do not deserve legal enforcement.

These cases of deliberately incomplete agreements present a genuine puzzle. The sample data show that courts are uniform in declining to enforce these agreements. And yet relatively sophisticated parties in business transactions continue to negotiate such agreements in the shadow of judicial non-enforcement. The behavior appears directly inconsistent with the assumptions of contract theory which hold that parties will not contract over non-verifiable terms, but will contract over verifiable terms that can be specified at low cost.

How can we understand these cases? Let’s begin by noting some common features. These agreements are simple rather than complex, and the commitments made by each promisor are clear. Thus, the interaction is relatively free from the moral ambiguity that attends complex interactions. In this respect, these cases are quite unlike those described above where the courts enforce the incomplete contract. A plausible hypothesis, therefore, is that these contracts are self-

enforceable incentive contract. For example, a specific bonus could have been pegged to desirable effects of Larson’s efforts—e.g., finishing the job on time or bringing the project in under budget. Or, the parties could have used a third party, such as an architect, as the arbiter of quality.

⁷² The stipulation for prescribed “deliverables” is common in many transactional settings, such as, for example, contracts between architects and their clients.

⁷³ See, e.g., Victor P. Goldberg, *The Net Profits Puzzle*, 97 Colum. L. Rev. 524 (1997) (describing the ubiquitous use of royalty offsets against fixed advances in the entertainment industry).

enforcing; either the parties are relying on reputational sanctions or on the overhang of repeated interactions to make their promises credible. Indeed, the similar practice of firms issuing legally unenforceable “comfort letters” to prospective lenders has been explained as a reputational signal that makes the agreements self-enforcing.⁷⁴

But the cases in the sample do not square easily with the common understanding of the domain of self-enforcing agreements. The transactions represented by the cases are, for the most part, isolated, one-shot interactions between relative strangers in heterogeneous markets where reputational constraints are thought to be quite weak.⁷⁵ In such an environment, reputation alone is an inadequate means of credibly enforcing promises. Even if others can observe the interaction, they are unlikely to learn about the true reasons why the particular transaction broke down. Without moral clarity, the mere fact of breakdown is not sufficient to impose a reputational cost on either party. If self-enforcement is to be a satisfactory explanation for this puzzle, therefore, its domain must be significantly larger than is conventionally assumed. In the discussion that follows in Part II, I evaluate emerging economic theories of reciprocal fairness that purport to broaden the domain of self-enforcement to include the transactions evidenced in the data.

II. RECIPROCAL FAIRNESS AS A MEANS OF SELF-ENFORCEMENT

A. Fairness and Rational Choice.

The principle of fairness is entrenched in legal doctrine, including contract doctrine. Equitable estoppel, quantum meruit, unjust enrichment, the doctrine of avoidable consequences,

⁷⁴Sacasas & Wiesner, *Comfort Letters*, supra note --- at 328:

Legally vague promises and inferences from cautious language are not always valueless in business....Custom shows that memorializing even a weak legal commitment carries some moral and business weight. The letter can be shown to others, and reputations can be injured by the writer's breach of faith....Id.

⁷⁵In 67% (37 of 55) of the cases where the courts declined enforcement, the transactions were essentially discrete, one-shot interactions between relative strangers. See Table 2 infra.

unconscionability, good faith, reasonableness and reformation are just a few of the contract doctrines that can be understood in fairness terms. Moreover, most individuals hold strong notions of fairness that are grounded in a common experience of the social preference for reciprocity and equality of treatment. But law and economics scholars have largely ignored the fairness debate. One reason is that the claims of law and economics rest on the predictive power of rational choice theory, a theory that assumes individuals choose between competing alternatives based on rational self-interest.

In recent years, two sustained lines of attack have been mounted against rational choice theory. The first--behavioral decision theory--challenges the rationality assumption, and has gained much attention among legal scholars.⁷⁶ There is now substantial evidence that individuals make systematic cognitive mistakes in laboratory experiments when asked to solve specified individual decision problems.⁷⁷ But these experiments do not test a general theory of how people make decisions and thus they raise an issue of external validity; that is, it is an open question as to when real world parties will behave as did the experimental subjects.⁷⁸ For this reason, the legal implications of behavioral decision theory remain uncertain.⁷⁹

⁷⁶ There is an extensive literature traveling under the label of “behavioral law and economics” that builds on research in cognitive psychology and behavioral economics. See e.g., Christine Jolls, Cass Sunstein & Richard Thaler, *A Behavioral Approach to Law & Economics*, 50 Stan. L. Rev. 1471 (1998). For a survey of the literature, see Daniel C. Langevoort, *Behavioral Theories of Judgment and Decision-Making in Legal Scholarship: A Literature Review*, 51 Vand. L. Rev. 1499 (1998).

⁷⁷The early seminal work in this field includes Daniel Kahneman & Amos Tversky, *Prospect Theory: An analysis of Decision Under Risk*, 47 *Econometrica* 263 (1979); same authors, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *Science* 1124 (1974); Richard Thaler, *Some Empirical Evidence on Dynamic Inconsistency*, 8 *Econ. Letter* 201 (1981) ; same author, *QUASI-RATIONAL ECONOMICS* (1991).

⁷⁸See Jessica L. Cohen & William T. Dickens, *A Foundation for Behavioral Economics*, 92 *Amer. Econ. Rev.* 335 (2002) (noting a consequence of the “lack of theoretical foundations [is that] the policy implications of behavioral economics are limited by an inability to predict circumstances in which anomalous behavior will arise (other than in those sorts of circumstances in which it has been observed before) or how it will respond to policy changes.”).

⁷⁹For a recent and extremely thorough analysis of the psychological literature and a skeptical view of its relevance for the law, see Gregory Mitchell, *Taking Behavioralism Too Seriously? The Unwarranted Pessimism of the New Behavioral Analysis of Law*, 43 *Wm. & Mary L. Rev.* 1907 (2002); same author, *Why Law and Economics Perfect Rationality Should Not be Traded for Behavioral Law and Economics Equal Incompetency*, 91 *Geo. L. J.* — (2002).

The second critique, which has received much less attention, accepts rationality as a first order approximation of individual choice, but challenges the claim that all individuals are exclusively motivated by their material self-interest. Recent work in experimental economics has provided robust evidence that many people are strongly motivated by concerns for fairness and reciprocity.⁸⁰ This evidence implies that a substantial fraction of people behave as if they are motivated by fairness concerns as well as by self-interest.⁸¹ If people differ in regard to how selfishly or fairmindedly they behave, this difference has important economic and legal consequences. In particular, the social preferences for reciprocity and equality of treatment are the strongest candidates for developing a theory that expands the range of self-enforcing contracts to include isolated interactions between relative strangers.

B. The Empirical Evidence: The Heterogeneity of Fairness and Self-Interest

The empirical challenge to the self-interest hypothesis began in the 1980s when experimental economists started to study bilateral bargaining games in controlled laboratory settings. One of the games that produced the most dramatic evidence of social preferences other

⁸⁰ See e.g., M. Rabin, *Incorporating Fairness into Game Theory and Economics*, 83 *Am. Econ. Rev.* 1281 (1993); D.K. Levine, *Modeling Altruism and Spitefulness in Experiments*, 1 *Rev. Econ. Dynam.* 593 (1998); Armin Falk & Urs Fischbacher, *A Theory of Reciprocity*, Institute for Empirical Research, Working Paper #6 (1998); Martin Dufwenberg & Georg Kirshsteiger, *A Theory of Sequential Reciprocity*, Mimeo, CentER, Tilburg University (1998); Ernst Fehr & Klaus Schmidt, *A Theory of Fairness, Competition and Cooperation*, 114 *Q. J. Econ.* 817 (1999); Ernst Fehr, Simon Gächter, & Georg Kirchsteiger, *Reciprocity as a Contract Enforcement Device: Experimental Evidence*, 65 *Econometrica* 833 (1997). For a review of the literature, see Ernst Fehr & Armin Falk, *Psychological Foundations of Incentives*, University of Zurich Institute for Empirical Research in Economics, Working Paper #95 (2001). Despite the experimental results, rational choice theorists are reluctant to abandon the self-interest assumption. One reason is that this assumption has been quite successful in providing accurate predictions in some economic domains. For example, models based on self-interest make very good predictions about the behavior of parties in competitive markets. There is a further, methodological, reason. Changing assumptions about preferences makes it much more difficult to generate testable hypotheses because phenomena can then be explained by assuming the “right” preferences. The experimental evidence suggests, however, that this convention may no longer make much sense.

⁸¹ Ernst Fehr & Klaus Schmidt, *Theories of Fairness and Reciprocity - Evidence and Economic Applications*, University of Zurich, Institute for Empirical Research in Economics, Working Paper # 75 2-3 (2001). The experimental findings are robust as to the experimental subjects, but the relevance of this data for the general population raises the separate question of external validity. See discussion Part II(E), *infra*.

than self-interest was the Ultimatum Game.⁸² In the Ultimatum Game, a pair of subjects, separated from each other, must anonymously agree on the division of a fixed sum of money (say \$100). Party A (the Proposer) makes a single proposal of how to divide the amount. Party B (the Responder) can either accept or reject the proposal. If B accepts, then each takes away their respective sums. If B rejects, then both get nothing. Under the standard assumptions of rational choice, there is a Nash equilibrium in which A proposes the smallest money unit available (say \$1) and B accepts. This result obtains because A knows that B is rational and self-interested and thus will always prefer something to nothing. Since B will accept even the smallest amount, A who is also rational and self-interested will propose it in order to maximize her own pay off.

The Ultimatum Game has been tested in various settings with relatively large sums of money (in some experiments the amount represents more than three month's income for the participants) and the robust result is directly contradictory to the self-interest hypothesis.⁸³ The evidence shows that any proposal less than 20% of the amount will be rejected with a 50% probability. Moreover, the probability of rejection decreases as the initial offer increases.⁸⁴ Thus, it seems clear that many responders do not behave in a self-interested, maximizing manner. They are prepared to reject offers they perceive as unfair even at a cost to themselves. A further robust result is that many proposers seem to anticipate that very low offers will be rejected with a high probability. This result has been confirmed by experiments in another simple game, the Dictator Game, in which the Responder has no choice but must accept the Proposer's offer. Results show that initial offers in the Ultimatum Game are substantially higher than in the Dictator Game, indicating that proposers apply backward induction and anticipate retaliation against unfair

⁸² The seminal paper is Werner Guth, Rolf Schmittberger & Bernd Schwarze, *An Experimental Analysis of Ultimatum Bargaining*, 3 J. Econ. Behav. & Org. 367 (1982). In addition to the Ultimatum Game, other games were developed to test the self-interest hypothesis, including the Gift Exchange Game, the Trust Game and the Dictator Game. All of these games have the salient feature of simplicity. Since the games are easy for experimental subjects to understand, the inferences to be drawn regarding their motivations are more robust.

⁸³ Elisabeth Hoffman, Kevin McCabe, and Vernon Smith, *On Expectations and Monetary Stakes in Ultimatum Games*, 25 Int'l J. of Game Theory 289 (1996); Ernst Fehr & Elena Tougareva, *Do High Money Stakes Remove Reciprocal Fairness*, Mimeo, Institute for Empirical Research, University of Zurich (1995);

⁸⁴ Colin F. Camerer & Richard H. Thaler, *Ultimatums, Dictators and Manners*, 9 J. of Econ. Pers. 209 (1995); Alvin E. Roth, *Bargaining Experiments* in HANDBOOK OF EXPERIMENTAL ECON. (1995).

proposals.⁸⁵

The Ultimatum Game shows that a substantial fraction of individuals will punish unfair behavior. Another game, the Gift Exchange Game, has shown that a substantial fraction of responders are willing to reward actions that are perceived as generous or fair.⁸⁶ In the Gift Exchange Game, the Proposer offers a sum of money between 1 and 10 units (imagine that it is a salary offer). The Responder can either accept or reject the offer. If she rejects both subjects receive nothing. If the Responder accepts, she must then expend some amount of effort (think of it as job performance) that is costly to her. Standard rational choice theory predicts an equilibrium in which the Responder will always choose the lowest possible effort level (why try any harder than you have to when effort is costly). Anticipating this, the Proposer will always propose the lowest possible salary offer. But again, the results directly contradict the self-interest hypothesis. All of the studies confirm that the average effort is positively correlated to the offered wage. This implies that responders, on average, reward generous salary offers with generous efforts (even when it is costly for them to do so).⁸⁷

These experiments yield two important conclusions. First, the data show that the subjects in these experiments are heterogeneous: some individuals cooperate voluntarily and some do not. In all of these games, the data is remarkably robust in showing considerable individual differences among the subjects. Thus, for, example, while there are a significant fraction of responders in the Gift Exchange Game who repay generous offers with generous efforts (the data across

⁸⁵Fehr & Schmidt, *Theories of Fairness*, supra note — at 6. See also, Alvin E. Roth, Vesna Prasnikar, Masahiro Okuna-Fujiwara & Shmuel Zamir, *Bargaining and Market Behavior in Jerusalem, Ljubljana, Pittsburgh, and Tokyo: An Experimental Study*, 81 Am. Econ. Rev. 1068 (1991).

⁸⁶Ernst Fehr, Georg Kirchsteiger, & Arnon Riedl, *Does Fairness Prevent Market Clearing? An Experimental Investigation*, 58 Q. J. Econ. 437 (1993).

⁸⁷ See e.g., Fehr, Kirchsteiger & Riedl, supra note 45; same authors, *Gift Exchange and Reciprocity in Competitive Experimental Markets*, 42 Eur. Econ. Rev. 1 (1998); Gary Charness, *Responsibility and Effort in an Experimental Labor Market*, 42 J. Econ. Behav. & Org. 375 (2000); Ernst Fehr & Armin Falk, *Wage Rigidity in a Competitive Incomplete Contract Market*, 107 J. Pol. Econ. 106 (1999); Simon Gächter & Armin Falk, *Reputation or Reciprocity*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 19 (1999).

experiments is remarkably consistent that about 40% are “fair” types), there is also a substantial fraction (again consistently ranging between 40 and 60%) who always make purely selfish effort choices.⁸⁸ But despite the presence of heterogeneous responders (some fair, some selfish), the fraction of fair responders is sufficiently high to make a high salary offer profitable to the proposer.

Second, it is important to emphasize that the interactions in all of these games are one-shot, isolated exchanges. The subjects do not know each other and only interact once, anonymously. Thus, the behaviors that are revealed in the experiments, especially the preference for reciprocity held by a fraction of the subjects, must be distinguished from patterns of cooperation that are revealed in iterated games. Patterns of cooperation and investment in reputation in ongoing relationships are perfectly consistent with self-interest; on the other hand, reciprocity in one shot interactions directly contradicts the self-interested hypothesis.

C. Toward a Theory of Reciprocal Fairness.

Can the results of these experiments be explained in a rational choice framework by relaxing the assumption that all individuals are exclusively motivated by self-interest? One approach is to focus on the *distributional effects* of any interaction. There are several candidates for a theory of fairness among this “social preferences” approach.⁸⁹ Thus, for example, one can hypothesize that some fraction of parties are motivated by altruism; that is, that their utility increases with the well-being of other people. Altruism explains the generous behavior of responders in gift exchange games, but it is clearly inconsistent with the evidence that some players retaliate and hurt other subjects even when it is costly for them to do so.⁹⁰ An alternative hypothesis is that some subjects are motivated by envy; that is, they care not only about their

⁸⁸Ernst Fehr & Armin Falk, *Psychological Foundations of Incentives*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 95 at 5 (2001) (reviewing the experimental evidence).

⁸⁹The utility functions of individuals with social preferences depends not only on their own material payoffs but also on how much material resources are allocated to others. Given these preferences, the actors are assumed to behave perfectly rationally and thus traditional game theoretic models can be used to predict equilibrium outcomes.

⁹⁰ Fehr & Schmidt (2001) *supra* note --- at 13-14.

absolute wealth but also about their relative standing as compared to others.⁹¹ This preference for envy is just the opposite of altruism. It means that a player suffers if she gets less than the other party but doesn't care about the other if she gets more. Thus, while envy explains retaliation in ultimatum and gift exchange games, it does not explain the generous behavior in those interactions.

Ernst Fehr and Klaus Schmidt have developed a theory of inequity aversion that captures the key results in the experimental games and combines the features of both altruism and envy.⁹² Under this theory, a person is altruistic to other players if her payoffs are above an equitable benchmark and is envious of the others if their payoffs exceed that benchmark. In other words, people compare themselves with others in their group (and with the other player in two person games) by using a benchmark of equality of distribution. Inequity aversion thus can rationalize positive *and* negative actions toward other people.

A second approach to the fairness problem focuses not on the distributional effects of an interaction but on the intent that can be inferred from those effects. This "intention-based reciprocity" assumes that a person cares about the intentions of the other party to a bilateral interaction. If the other party treats her kindly then she wants to return the favor, but if the other party treats her unfairly, then she acts to punish unfair behavior. Thus, in this approach, the key is how a person interprets the actions of the other party.⁹³ Intuitively, it would seem that the *intention* to be fair plays an important role in many facets of life, independent of the distributive consequences themselves. And indeed, recent experiments provide clear support for the

⁹¹ This "relative income" hypothesis has a long lineage in economics and can be traced at least to Thorstein Veblen.

⁹² Ernst Fehr & Klaus M. Schmidt, *A Theory of Fairness, Competition and Cooperation*, 114 Q. J. Econ. 817 (1999).

⁹³ Matthew Rabin, *Incorporating Fairness into Game Theory and Economics*, 83 Am. Econ. Rev. 1281 (1993). These intention-based interactions cannot be modeled under traditional game theory but require a more complex and less tractable framework known as psychological game theory.

behavioral relevance of the intent of the actor.⁹⁴ These experiments show that, in judging the fairness of an action, individuals not only take into account the distributive consequences of an action but also the intention that is signaled by the action.⁹⁵ Both factors are germane. In a world without signals of intent there is still evidence of reciprocity, but the level of reciprocity is significantly enhanced where the actor can infer the intention of the other player.⁹⁶

Let's summarize, then, the key elements in formulating a theory of reciprocal fairness that is consistent with this substantial body of experimental evidence: First, many individuals deviate from purely self-interested behavior in a reciprocal manner. Reciprocity means that in response to friendly actions, many individuals are much more cooperative than predicted by the axioms of rational choice. Conversely, in response to hostile actions many individuals are much more nasty and vengeful. Second, individuals repay gifts and take revenge even in interactions with complete strangers and even if it is costly for them and yields neither present nor future material rewards. Finally, this is a heterogeneous world. Some individuals exhibit reciprocal fairness and others exhibit pure self-interest. Taking all the experiments together from such diverse countries as Austria, Indonesia, the Netherlands, Russia and the United States, the fraction of reciprocally fair subjects ranges from 40 to 60% as does the fraction of subjects who are selfish.⁹⁷

⁹⁴ Armin Falk, Ernst Fehr and Urs Fischbacher, *Testing Theories of Fairness - Intentions Matter*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 63 (2000). In order to isolate the role of intent, Falk, Fehr and Fischbacher devised an experiment in which one set of proposers could signal their intentions (by choosing to make an offer to the other from a range of options that varied from unfair to generous) and a second set of experiments where such signals of intent are ruled out completely (i.e., where the proposer's offer was fixed by chance and the responder knew this).

⁹⁵ Id at —.

⁹⁶ Id. at —.

⁹⁷This heterogeneity is critical to understanding the apparent anomaly between bilateral interactions where evidence of reciprocal fairness is robust and experiments in competitive markets where almost all subjects behave as if they were self-interested. The economic environment determines the preference type that is decisive. Thus, in a competitive market a few selfish players can drive the price to the competitive level and no single fair person can effect that price. On the other hand, in bilateral interactions, the presence of a fraction of inequity averse players can create incentives for selfish types to make fair offers. Ernst Fehr & Klaus Schmidt, *Theories of Fairness and Reciprocity - Evidence and Economic Applications*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 75 at 38-40 (2001).

D. Testing Reciprocal Fairness in Incomplete Contracts

What, then, does a theory of reciprocal fairness tell us about the optimal design of contracts? To see its relevance, consider the following example. Assume that a retailer in New York is interested in acquiring a single shipment of the highest quality carved rosewood furniture--coffee tables, trunks, chests, etc.-- from India. The buyer anticipates using this shipment in a one shot promotion of luxury home furnishings that it is planning for the holiday season. In a perfect world, the buyer would visit a market in New York, survey the imported rosewood and purchase the *highest quality* at the price prevailing for such goods. Unfortunately, no such market exists, so the buyer must contract to purchase the furniture from a seller in India. The buyer has never dealt with the seller before and doesn't anticipate doing so again.

There are two alternative contracts the buyer might propose. One option is to propose an obligatorily complete contract (that is, a contract in which the parties condition performance on all verifiable information and only discard non-verifiable information). Assume that high quality can be observed but not verified to a court, but that a court is able to verify that the goods do not meet merchantable quality. In other words, a court can determine that the delivered quality is unacceptable under that legal standard.⁹⁸ This option thus requires the buyer to specify the quantity of furniture required, set a quality level of ordinary merchantability and propose to pay the market price commensurate with that quality (say \$50,000). This contract is legally enforceable and, should the Indian seller fail to deliver merchantable quality goods, the buyer can recover expectation damages (although costs and attorneys fees would not be recouped). Moreover, since the seller will charge the market price for merchantable quality goods, much of the contractual surplus (representing the value to the buyer of having goods of at least

⁹⁸ UCC §2-314 (2)(a) provides that goods must be “at least such as would pass without objection in the trade under the contract description.” Thus, under this standard the court can determine if the attributes of the goods are consistent with the contract description and also are “fit for their ordinary purposes for which such goods are used ” under the general legal standard of merchantable quality (UCC§2-314(2)(c)). The assumption that merchantable goods are verifiable can be stated formally. Suppose that a seller could produce quality at varying levels. Denote the realized quality as q and the distribution of possible quality levels from which q is drawn as $\{q_l, \dots, q_a, \dots, q_h\}$, where q_a is the average quality. Assume that any $q < q_a$ is verifiable, but the court cannot determine the quality level of anything that is above that verifiable standard. Then the parties could write a contract that requires the seller to deliver the quality level q_a at the market price p_a .

merchantable quality for its promotion) is retained by the buyer.

There is a second option. The buyer can instead write an intentionally indefinite contract. This contract proposes a lower base price (say, \$40,000) for goods that are sold “As Is,” subject only to a minimum contract description.⁹⁹ In addition, the buyer promises to pay a bonus of *as much as* \$20,000 if the seller delivers high quality goods satisfactory to the buyer. Here, in other words, the buyer is offering potentially to share a portion of the greater contractual surplus with the seller in return for the enhanced effort necessary to produce the specialized goods that maximize the buyer’s value. But this proposal has a twist. The base price term in this incomplete contract would be enforceable (assuming seller delivered goods meeting the contract description), but under the common law indefiniteness doctrine, neither any additional effort expended by the seller nor the buyer’s promise to give a bonus if satisfied is legally enforceable. Thus, there is a risk that the buyer will deliver poor quality goods for a \$40,000 price (which is the lowest value contract for the buyer).

Which contract will maximize the expected contractual surplus? It is tempting to suggest that the obligationally complete contract, with a legally enforceable quality term, is on average more likely to maximize expected joint returns. While the first best efficient contract would have the seller deliver high value goods at a contract price of \$60,000, the downside risk is that the seller will deliver low quality, low value goods for \$40,000. This risk exists because the indefinite contract precludes a legal action against the seller should it deliver low quality goods that meet the contract specifications. Since high quality is not verifiable, the first best option is not contractible. The only legally enforceable contract for quality is the second best option of merchantable goods at a \$50,000 price.

⁹⁹Under an “As Is” contract, the seller makes no warranties of quality (see UCC §2-316(3)(a)), but the seller is responsible for delivering goods meeting the basic contract description (e.g., “six rosewood tables, four carved trunks,” etc.). See UCC §2-313(1)(b) (express warranties are created by any description of the goods which is made part of the basis of the bargain). Comment 4 to §2-313 explains that a clause generally disclaiming all warranties of quality under §2-316 (such as an “as is” disclaimer) cannot reduce the seller’s obligation to supply goods sufficient to meet the contract description.

This conclusion is strongly supported by rational choice theory. A game theorist would predict that under the indefinite bonus contract the Indian seller will deliver goods that meet the verifiable contract description (in order to recover the \$40,000 contract price) but will choose a low effort level thus delivering lower quality goods. This is because expending extra effort in producing higher quality goods is costly and the extra effort will not earn a compensating bonus payment. The bonus promise is discretionary and thus a self-interested buyer will always decline to pay any bonus regardless of the efforts expended by the seller.

But do these predictions hold if preferences for fairness and reciprocity are taken into account? The more complete, legally enforceable contract aims at a rather unfair distribution of the surplus. If the Indian seller is concerned about this, she could punish the buyer in two ways. First, as in an ultimatum game, she could simply reject the contract in which case both parties would receive a zero payoff. Second, the seller could accept the contract but punish the buyer's unfairness by shirking on the effort to produce merchantable quality goods, thus necessitating costly litigation to enforce the agreement. On the other hand, the very same preferences for fairness and reciprocity would actually enhance the performance of the more incomplete contract. A fair buyer in this situation will reciprocate a high effort level from the seller by paying a generous bonus. Moreover, assuming that the fraction of fair types in the general population is consistent with the experimental evidence, the probability of a fair bonus being paid is sufficiently great to motivate the seller (regardless of its type) to expend the extra effort. Thus, if a substantial fraction of the population responds to opportunities to reciprocate, we would predict that the indefinite bonus contract would actually produce a better result for both parties than the more complete, legally enforceable contract.¹⁰⁰

¹⁰⁰ This result can be stated formally. Assume that $0 < \theta < 1$ of the buyer population are fair types, in the sense that these buyers will reciprocate a fair offer from the seller and comply with their promises even if the promises are legally unenforceable. Sellers know θ , but do not know whether the particular buyer they face is fair or unfair. The buyer's valuation for the product is v drawn from the distribution $\{v_l, \dots, v_h\}$, with associated prices p_l , etc. The contract should be written only when it would be socially efficient, which is when it would generate greater surplus: $v_h - p_h > v_l - p_l$. The seller's cost for producing high quality is c and the cost of producing low quality is normalized to zero. Recalling that quality is observable, the buyer offers the following contract:

- I. $p_l + (p_h - p_l) = p_h$ for q_h
- II. p_l for q_l .

The bonus is $p_h - p_l$, which the fair buyer pays when the seller delivers high quality. Since quality is unverifiable, the

What do the experimental results show? Fehr, Klein and Schmidt have designed an experiment involving a single interaction that tests the choice between an incomplete bonus contract that relies on reciprocity and a more complete incentive contract that monitors performance under the threat of costly legal enforcement.¹⁰¹ In the experiment, each principal was matched randomly and anonymously with a different agent. The principal had to choose between an incomplete contract, where the initial wage offer was enforceable but both effort and bonus were discretionary, and a more complete contract with explicit incentives for effort and enforceable (and costly) sanctions for nonperformance.¹⁰² Ninety percent of the principals chose

unfair buyer will pay only p_l regardless of what the seller delivers.

Now consider the seller's problem when a buyer offers this contract. The seller will produce high quality when

$$\alpha p_h + (1 - \alpha)p_l - c \geq p_l$$

The first term on the left hand side is the expected gain from a fair buyer (the probability a buyer is fair times the high quality price); the second term is the expected gain from a cheating seller; and the third term is the cost of high quality. The seller can produce low quality costlessly and get the low price, which is the right hand side. This simplifies to

$$\alpha(p_h - p_l) \geq c$$

The left hand side is the expected marginal gain from producing high quality and the right hand side is the cost.

Rearranging terms, the seller will produce high quality when

$$\alpha \geq \frac{c}{p_h - p_l}$$

Holding constant the percentage of fair buyers, sellers are more likely to produce high quality when the cost of doing so is low - c is small – and when the premium that buyers will pay for high quality is large (the denominator is large). And holding the right hand side constant, sellers are more likely to produce high quality when the fraction of fair buyers is high (α is large). Assuming contracting costs are zero, all buyers will offer the contract described here. This is because the fair buyer is happy to pay for high quality and the unfair buyer is happy to cheat if he gets high quality. So ex ante the contract is in every buyer's self interest; only fair buyers will comply, however. Second, the seller is not trusting the buyer with whom she deals. Rather, she is making a profit maximizing decision given her knowledge of the percentage of fair buyers and the other parameters. So sellers will sometimes produce high quality and sometimes not.

¹⁰¹Ernst Fehr, Alexander Klein and Klaus M. Schmidt, *Fairness, Incentives and Contractual Incompleteness*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 72 (2001).

¹⁰²In a typical session there were 12 principals and 12 agents who played for ten periods. In each of the periods, an agent faced a different principal. A period consists of three stages. At stage one, the principal has to decide between the explicit or implicit contract. The implicit contract specifies a fixed wage and a desired effort level (between 1 and 10) which is costly to the agent. In addition, the principal can promise a bonus that may be paid after actual effort has been observed. There is no contractual obligation to pay the announced bonus, nor is the agent obliged to choose the desired effort level, but the principal is committed to paying the fixed wage. The explicit contract also specifies a binding fixed wage and a desired level of effort. Here, however, the principal can impose a fine that has to be paid to the principal in case of verifiable shirking. The verification cost is fixed. At stage two, the agent observes which contract has been offered and decides whether to accept or reject the offer. If the agent rejects the offer, the game ends and both parties receive a zero payoff. If the agent accepts, she then chooses the actual level

the bonus contract. Some principals did not pay a bonus, but a significant fraction did respond generously to higher levels of effort from the agents by paying an appropriate bonus. Thus, the average bonus increased significantly and proportionately with the level of effort provided. This made it worthwhile for agents (whether fair or selfish) to put forth much greater effort than the self-interest hypothesis would predict. Indeed, the average amount of effort induced by the bonus contract was 2½ times that which was induced by the explicit, legally enforceable contract. Thus, on average, the incomplete bonus contract produced a much higher average payoff to both parties.¹⁰³

These experiments demonstrate that powerful incentives can be stimulated in a very incomplete contract between total strangers who may never interact again. Rather than using explicit sanctions, the incomplete contract relies on reciprocal fairness as an enforcement device. Importantly, the incomplete contract does better precisely because it is incomplete and thus leaves more freedom for the parties to reciprocate. By simply assuming the presence of a substantial fraction of reciprocally fair individuals, this anomalous result becomes predictable: The indefinite bonus contract will produce an outcome significantly closer to the first best objective than will the more complete, legally enforceable contract. To be sure, this enforcement mechanism is not perfect and, depending on the fraction of reciprocal types in the population, it can fail. Yet the experimental evidence strongly suggests that the effect of reciprocal fairness, an effect that thus far has been neglected in contract theory, is an important element in optimal contract design.

of effort. At stage three, the principal observes the actual effort. If the principal has chosen the implicit contract, he then decides whether to award a bonus payment to the agent. If the principal offered the explicit contract and the agent's effort falls short of the agreed level, a random draw decides with probability 1/3 whether shirking is verifiable, in which case the agent has to pay the fine. If all players are purely self-interested there is a straightforward result. A selfish principal never pays a bonus. Anticipating this, the agent only provides the minimum effort of 1. If the principal chooses the explicit contract, the principal should choose the maximum fine because this is the best deterrent against potential shirking. The parameters of the experiment are chosen such that a risk neutral and selfish agent maximizes expected utility by choosing an effort level of 4 if faced with the maximum fine. Since the enforceable effort level is only 1 under the implicit contract, the model predicts that principals prefer the explicit contract. Id at 5-8.

¹⁰³The more complete, explicit contract produces a lower payoff, all else equal, because shirking is costly to monitor, verify and sanction. The bonus contract stimulates greater efforts from agents because a principal's promise to pay a conditional bonus is credible and principals incur no enforcement costs. Id. at 20.

E. A Critique of Fairness Theory: Issues of External Validity

Notwithstanding the predictive power of reciprocal fairness in experimental settings, the theory has yet to be seriously tested in real world contexts. Thus, any use of fairness theory still raises the question of external validity: To what extent do the experimental results predict how economic actors will behave in the real world? There are four major challenges to the validity of this evidence in explaining real world contracting behavior and in formulating legal policy. First is the question of whether the stakes in experimental games are sufficiently high to simulate the response of real world actors in commercial contracts. It seems intuitively plausible, for example, that a preference for reciprocal fairness may become weaker when the monetary stakes are higher. Despite that intuition, however, experiments with relatively high stakes have shown similar patterns of reciprocity. Lisa Cameron tested the impact of high stakes on negative reciprocity (the willingness to punish unfair behavior) with subjects in Indonesia. In a high stakes Ultimatum Game (representing over three months income to the subjects), she found no variation in proposers initial offers and only a slight increase in the acceptance rate of low offers by responders.¹⁰⁴

More recently, experiments in Russia in a Gift Exchange Game have tested the impact of high stakes on positive reciprocity (the willingness to reward fair behavior). In these experiments, the subjects earned on average between two and three month's income. The study found that a ten-fold increase in the size of the stakes had little impact on either the initial wage offer of the "employers" or the reciprocal effort levels of the "workers."¹⁰⁵ It is possible, of course, that experiments with *extremely* high stakes would reveal greater deviations from the predictions of fairness theory, but, absent that data, a casual review of the relative size of the contractual surplus in the sample cases does not suggest that the real world stakes would, by themselves, undermine the theory.

¹⁰⁴Lisa A. Cameron, *Raising the Stakes in the Ultimatum Game: Experimental Evidence from Indonesia*, 37 *Econ. Inquiry* 47 (1999).

¹⁰⁵ See Ernst Fehr, Urs Fischbacher & Elena Tougareva, *Do High Stakes and Competition Undermine Fairness? Evidence from Russia*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 120 (2002) (testing 60 undergraduates at an engineering college).

The second critique of the experimental evidence is particularly relevant to the use of fairness theory to explain the behavior of contracting parties. All of the experimental subjects are individuals and not firms. Thus, it is unclear to what extent the observed behaviors, even if they apply to the general population, are relevant to contracts between business entities. One might speculate, for example, that individuals in laboratory experiments may respond differently than officers of firms because the experimental subjects are not subject to the same pressures to make profit maximizing decisions. Moreover, some recent evidence suggests that behavioral anomalies can be substantially mitigated or made to disappear when individuals are asked to perform as actors in firms,¹⁰⁶ or when the applicable institutions permit communication within a group of actors and require competition between groups.¹⁰⁷ It is important to know the nature of the contracting parties in any particular transaction, therefore, before reciprocal fairness can be advanced confidently as an explanation for the observed behavior. As Table 2 shows, 50% of the unenforceable agreements in the sample involved either individuals or sole proprietors on *both* sides of the transaction, and in 75% of the cases, one of the parties was either an individual or a sole proprietor. In only ten cases were both litigants large corporate entities. Thus, the contracting behaviors observed in the cases reflect, in general, the preferences of individual actors and not those of corporate officers acting in an agency capacity.

The third objection to generalizing these findings to real world contracting behavior is that the subjects (who are typically university undergraduates) may be playing a different game than that of real world actors. For instance, the fair behavior that is observed in the experiments might be driven by the fact that the experimenters can observe the subjects actions and students may not want to appear selfish or greedy to their professors. But this speculation seems inconsistent with the basic finding of heterogeneity. There are, after all, significant individual differences observed in the subjects behavior. The substantial fraction of subjects who exhibit selfish behavior seem unconcerned about their professors opinions. Moreover, when experimenters

¹⁰⁶ See Jennifer Arlen, Matthew Spitzer & Eric Talley, *Endowment Effects Within Corporate Agency Relationships*, 31 J. Legal Stud. 1 (2002).

¹⁰⁷ See -----, *Do Institutions Promote Rationality? An Experimental Study of the Three-Door Problem*, Discussion Paper #2002-21 (University of St. Gallen, Sept. 2002).

conducted a gift

exchange game where effort levels were set exogenously, the wage offers were uniformly “unfair” and approached the predictions of the self-interest hypothesis, suggesting that any concern with appearing selfish is rather easily overcome.¹⁰⁸

In the same vein, however, one might ask whether experimentally-observed reciprocal fairness is evidence of a universal pattern of behavior or whether an individual’s economic and social background may influence her preferences for fairness. And, if so, is reciprocal behavior better explained by an individual’s attributes (sex, age or relative wealth) or by the attributes of the group or culture to which she belongs? A recent cross-cultural study using the Ultimatum Game in fifteen small-scale societies found that the self-interest hypothesis fails in each society studied.¹⁰⁹ But the study did show significant cross-cultural differences, both in the equity of offers and the rate of rejections. The findings suggest that observed differences are attributable to group-specific conditions such as social institutions or cultural fairness norms. Specifically, the study shows that the greater the payoff from cooperation in economic production for people in the society and the more those people rely on market exchange in their daily lives the greater the degree of fairness behaviors (e.g., cooperation, sharing and punishment).¹¹⁰ This last study is relevant to an inquiry into the causes of deliberately incomplete contracts; it suggests that contracts written in advanced market economies will exhibit high levels of reciprocal fairness behaviors. The higher the fraction of fair types in the population, all else equal, the more efficient is reciprocal fairness as a means of contract enforcement.

The final objection is related to this last point. The experimental evidence does not show whether observed preferences for reciprocity are inherent characteristics or learned behaviors or whether they simply represent the failure of self-interested parties to adapt cooperative behavior

¹⁰⁸ Fehr, Fischbacher & Tougareva, *supra* note 103 at —.

¹⁰⁹ Joseph Henrich et al, *In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies*, 91 AEA Papers and Proceedings 73 (2001).

¹¹⁰ *Id* at 76-77.

that works well in repeated interactions to one-shot laboratory interactions. After all, individuals decision strategies have to work in real-world transactions and not in economics experiments. So it would be hardly surprising if individuals devise strategies --or heuristics--that *do* work in real-world transactions, and then fail to adjust those strategies to the pure single iteration game in the laboratory. Or, to put it another way, rather than being equally divided between self-interested individuals and reciprocally fair ones, the world may be divided between self-interested individuals who know how to adjust their life strategies in laboratory games and those who don't.

Another possibility is that cultures generate norms of reciprocity that tend to promote one's self-interest. People adhere to the norms because they believe in them as norms, but the norms themselves are consistent with self-interest, except in laboratory experiments. This is because, *over time*, parties will be better off if they behave fairly. Following the "over time" heuristic consistently, not making distinctions for what appear to be single-iteration games, may be a successful, maximizing strategy. After all, sometimes one might mistake a repeat-play game for a single-iteration game and get punished, or one might pay some reputational price that he didn't expect, and so on. Thus, it is possible that a rational utility-maximizer could easily behave in the way the experimental economists describe as reciprocally fair (and not utility-maximizing) simply because the economists are not thinking about the costs of categorizing, and mis-categorizing, transactions. In short, there may be, in fact, no clear conflict between self-interest and the participants' observed behavior. Reciprocal fairness may not undermine the self-interest hypothesis as much as extend its reach.

This argument is quite plausible, indeed, even persuasive, but for the purposes of understanding self-enforcing agreements it is irrelevant. The important point is that all the available evidence suggests that a substantial fraction of individuals act *as if* they were reciprocally fair in isolated interactions with relative strangers. Whatever the source of that behavior (whether learned, normative, or intrinsic), it is quite relevant to understanding the contracting choices of real world individuals in developed market economies who write intentionally incomplete contracts. The apparent congruence between the experimental evidence and the factual context of the litigated cases thus justifies a further analysis in Part III of the fit

between the predictions of fairness theory and the observed behavior of contracting parties.

III. EXPLAINING INTENTIONALLY INCOMPLETE AGREEMENTS

Let's turn now to the central question that the evidence of reciprocal fairness poses for the legal regulation of indefinite agreements. Assume, for the moment, that the experimental evidence of a heterogenous world populated by *both* self-interested and reciprocally fair individuals accurately captures the external reality. Based on that assumption, can we provide convincing answers for two fundamental questions: Why do parties write intentionally incomplete agreements? And, is the presumption of nonenforcement reflected in the common law rule of indefiniteness justifiable?

A. Why do Parties Write Intentionally Incomplete Contracts?

The sample case data suggest that the incidence of intentionally incomplete agreements is significant. Roughly 240 cases were litigated to an appellate court over a four year period and 40% of the sample cases consisted of intentionally incomplete agreements. The incidence of litigation might be explained in several ways. One hypothesis is that the failure to write legally enforceable contracts in transactions of this type actually increases the risk of litigation and thus the sample represents a larger fraction of the population of such contracts than would be the case with litigation over otherwise enforceable contracts. This hypothesis implies that there is a selection bias: the litigated cases are more likely to require complex moral judgments about the nature of the promisor's obligations and the conditions precedent to performance. Thus, the parties are unable to settle their dispute because of fundamental disagreements about the nature of their respective commitments. But this hypothesis is inconsistent with the data from the sample cases that show that these agreements are relatively simple in form, clear in commitment and thus free from moral ambiguity.

An alternative hypothesis is that parties write these indefinite agreements because they are a more efficient method of contracting than the alternative. The efficiency hypothesis implies that these agreements are ubiquitous and that the litigated cases, representing instances where the transaction broke down, are a relatively smaller set of the total population of such agreements than would be the case with litigation over enforceable contracts.¹¹¹ This efficiency hypothesis is inconsistent with the basic axioms of contract theory that contracting parties do not contract over non-verifiable measures of performance and, conversely, do contract over verifiable measures of performance where transactions costs are relatively low. The cases indicate just the opposite: Contracting parties frequently discard readily available verifiable measures of performance in favor of agreements that condition on non-verifiable measures. Theorists have proposed several possible explanations for why parties might not contract over some verifiable factors. An obvious possibility is that the transactions costs of specifying all the possible verifiable states of the world may exceed any expected benefits.¹¹² But transaction costs do not explain the experimental results discussed above in Part II(D) where subjects who can costlessly elect legal enforcement of verifiable terms instead choose unenforceable bonus agreements.¹¹³

To unravel the puzzle, it is helpful to remember that the axioms of contract theory are premised on the assumption that the contract in question falls outside of the self-enforcing range. Thus, verifiability is relevant only when legal enforcement is necessary in order to make the parties promises credible. The puzzle of intentionally incomplete agreements can be solved, therefore, if these agreements are self-enforcing *and* if the self-enforcing mechanism is more

¹¹¹To be sure, there is a general problem of selection bias that suggests caution in generalizing from a population of decided cases to the universe of such agreements. I suggest below some plausible reasons why parties might seek to litigate such a low probability claim. See TAN *infra*. But the fact that the direction of any bias is uncertain does lend some credibility to the assumption that the incidence of such informal indefinite agreements is significant.

¹¹² Oliver Hart & John Moore, *Incomplete Contracts and Renegotiation*, 56 *Econometrica* 755 (1988).

¹¹³ See TAN *supra*.

efficient than the alternative of legal enforcement.¹¹⁴ But most of the sample cases of intentionally indefinite contracts appear to fall outside the self-enforcing range as that domain is traditionally understood. The transactions are predominantly one-shot interactions between “relative” strangers.¹¹⁵ A number of the cases do involve parties with some prior association and with a prospect of repeat transactions in the future, but reputation and repeat dealings appear, by themselves, insufficient to ensure that the agreement will be honored.¹¹⁶ The question, then, is whether reciprocal fairness is sufficient, either by itself or in combination with reputation and repeat play, to make the respective promises credible.

1. Reciprocal Fairness and Indefinite Bonus Agreements.

Consider the “indefinite bonus agreements” discussed earlier in Part I(D)2. Recall that the cases reflect a recurring pattern where a principal offers an agent a base compensation and requests an additional, non-verifiable performance in return for the promise of a non-verifiable bonus. To make a persuasive case for reciprocal fairness (given our empirical assumptions), we need to resolve several subsidiary questions. First, if the parties do not intend their agreements to be legally enforceable, why do they invest resources in negotiating these agreements, frequently reducing their respective promises to a signed writing? To be sure, a promise made by a reciprocally fair person is inherently credible and thus worth bargaining for. Such a person has a

¹¹⁴ There is a familiar argument that legal enforcement and self-enforcement regulate different aspects of the contractual relationship. On this view, legal enforcement functions much as a nuclear umbrella, deterring breach in those states of the world where the payoffs from breach are substantial and exceed the range of self-enforcement. The other side of the argument is that where the payoffs are relatively low, and reputation and repeated interactions are effective, they are a more efficient “conventional” deterrent. See Scott, *Conflict and Cooperation in Long-Term Contracts*, supra note -- at 2044-48; Eggleston, Posner, and Zeckhauser, *The Design and Interpretation of Contracts*, supra note --- at 116.

¹¹⁵ See Table 2 infra. I coded 38 of the 55 unenforceable cases in the sample as discrete rather than relational contracts. While the coding involves some judgment, in each of these cases the facts suggest that the parties entered into a single transaction and that prior to the agreement they were relative strangers.

¹¹⁶ Recall that in heterogeneous markets, reputation alone is an inadequate means of credibly enforcing promises. Even if others can observe the interaction, they are unlikely to learn about the true reasons why the particular transaction broke down. Without moral clarity, the mere fact of breakdown is not sufficient to impose a reputational cost on either party. Moreover, although the prospect of repeated interactions is always present to some degree, nevertheless, the discipline of conditional cooperation (or “tit for tat”) depends on the present expectation of a future payoff larger than the gains from defecting in the current transaction. Scott, *Conflict and Cooperation*, supra note — at 2027-34.

social preference for fairness and is prepared to bear costs to achieve an equitable outcome between the parties. But both fair and selfish parties will make the same promises. The bonus offer itself is thus not a signal of one's type (fair or selfish) because both fair and selfish principals will promise the same bonus.¹¹⁷ Nevertheless, given the assumption of heterogeneity (e.g., @ 40% of the population is reciprocally fair), the promise of a bonus is not cheap talk. The bonus promise is ex ante credible since there is a positive probability of a substantial bonus. Thus, the agent, whether fair or selfish, will exert non-verifiable effort equal to the expected value of the bonus.¹¹⁸

This argument implies that parties to these agreements do not intend legal enforcement as a secondary deterrent if the transaction breaks down. If not, then why do they sue? One answer to this question requires us to recall the Fehr and Schmidt theory of inequity aversion. Under their theory, fair types have a social preference for equality of treatment which implies a willingness to share gains from trade as well as a willingness to bear costs in order to punish inequity. Reciprocally fair people, in other words, are not wimps. They punish selfish behavior. Even though there is an positive ex ante probability of reciprocity, the assumed proportion of selfish people in the population implies that it will be necessary to mete out punishment from time to time. Since both fair and selfish agents will exert some non-verifiable effort to earn a bonus,¹¹⁹ the theory implies that breakdown will most often occur when selfish principals fail to pay a bonus earned by non-verifiable performance. This inference supports a testable prediction: litigation occurs primarily when a selfish principal fails to pay a bonus that the agent has earned

¹¹⁷ Since a selfish principal can costlessly copy the promise to give a bonus, there is no separating equilibrium. See Ernst Fehr, Alexander Klein and Klaus M. Schmidt, *Fairness, Incentives and Contractual Incompleteness*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 72 (2001).

¹¹⁸Note that one of the counterintuitive implications of the Fehr and Schmidt model of inequity aversion is that a reciprocally fair agent will shirk more than will a selfish agent. This is because the risk of not being paid a bonus by the principal is more costly for a fair agent than it is for a selfish agent. A selfish agent will only bear the cost of uncompensated effort if the bonus is not paid. But a reciprocally fair agent bears two separate costs if the principal does not pay the bonus. In addition to the costs of uncompensated efforts, this agent also feels worse because of her social preference for equality. Thus, the inequity of the selfish principal receiving a more valuable performance than he "paid for" is a further cost that reduces the expected value of the bonus to this agent.

¹¹⁹ Recall, however, that the non-verifiable efforts of fair agents will be lower than those of selfish agents.

by non-verifiable performance. In such a case, fair agents will be willing to bear costs in order to punish the principal. A fair agent will be willing to sue even when the expected value of litigation is negative.¹²⁰ The evidence from the sample cases is consistent with this prediction. In each of the indefinite bonus cases, the plaintiff is an agent suing her principal for breach of contract and claiming the right to a bonus earned by a non-verifiable performance.¹²¹

Moreover, there is no reason to believe that the parties to these agreements understand ex ante that there is such a low probability of enforcement if the transaction breaks down. These are not agreements where the parties have expressly announced their intention not to be legally bound.¹²² Rather, the nature of these agreements—simple, clear undertakings to treat the other party fairly—suggest that the parties are relying on the potency of reciprocity rather than on the absence of legal enforcement per se. Thus, a more plausible hypothesis is that, from the parties perspective, the ex ante prospect of legal enforcement is ambiguous. After all, a review of the cases would suggest to any lawyer that sometimes indefinite contracts are enforced and sometimes they are not. In the absence of a systematic, functional analysis, of the sort I have undertaken in this Article, there is no reason to believe that the distinction between deliberately incomplete agreements and other relational contracts is obvious to the parties who are planning

¹²⁰A self-interested plaintiff will not litigate unless the expected value of litigation (the probability of prevailing x expected damages - expected costs of litigation) is positive. A fair agent, however, experiences the unfairness of the denied bonus as an additional cost. A fair agent will litigate, therefore, so long as the probability of prevailing x expected damages + expected litigation costs to the defendant \geq expected costs of litigation to the plaintiff.

¹²¹To be sure, if the indefinite bonus contract were structured as a unilateral promise to pay a bonus for enhanced efforts, the agent could not be sued on an indefinite promise as the only such promise was made by the principal (in promising a bonus if satisfied). However, it is clear from the facts of most of the cases in the sample that the agreement was structured bilaterally; that is, the agent impliedly promised to perform non-verifiable tasks and the principal promised to pay a non-verifiable bonus. See e.g., *Smith v. Hammons*, 63 S.W.3d 320 (Mo.App 2002); *Sugerman v. MCY Music World, Inc.* 158 F.Supp.2d 316 (S.D. N.Y. 2001); *Lowinger v. Lowinger*, 287 A.D. 2d 39, 733 N.Y.S. 2d 33 (2001); *Larson v. Johnson*, 184 F. Supp 2d 26 (2002); *Cleveland Wrecking Co. v. Hercules Construction Corp.* 23 F.Supp. 2d 287 (E.D. N.Y. 1998); *Nat'l Mortgage Corp. v. Greenwich Capital Financial Products, Inc.*, 53 Fed. Appx. 510 (10th Cir. 2002); *Burns v. Dees*, 252 Ga.App. 598, 557 S.E. 2d 32 (2001); *Brines v. Xtra Corp.*, 304 F.3d 699 (2002).

¹²² Express declarations of an intention not to be legally bound are common, particularly in formal letters of intent. Indeed, such clauses, known as “Texaco clauses,” are ubiquitous in the standard form books. See Johnston, *Communication and Courtship*, supra note —.

these transactions. By electing to leave the question of legal enforcement ambiguous, the parties increase the credibility of the threat of punishment should a selfish principal fail to pay a bonus to a deserving agent.

The discussion thus far suggests that reciprocal fairness offers a superior contracting alternative to legal enforcement even in one-shot interactions between relative strangers. The experimental evidence supports three reasons why a self-enforcing bonus agreement is more efficient than a legally enforceable contract that conditions only on verifiable measures of performance. First, legal enforcement is significantly more costly than self-enforcement. Second, reciprocal fairness allows the parties to make credible promises regarding non-verifiable measures of performance, thus increasing joint surplus. In the case of the indefinite bonus agreement, the principal has two opportunities to encourage reciprocity – by increasing the initial base compensation and by promising a bonus. Finally, these self-enforcing bonus agreements may help to solve a multi-tasking problem in instances where the agent’s performance involves both verifiable and non-verifiable tasks. Holmstrom and Milgram argue that, in multi-tasking contexts, a flat wage rate for all tasks is more efficient than a more complete contract that links compensation to verifiable tasks.¹²³ This is because linking verifiable performance measures to compensation will cause the agent to substitute away from the non-verifiable tasks to the compensated verifiable tasks thus impairing overall performance. Self-enforcing bonus agreements may avoid this inefficient effort allocation across tasks because the actual bonus can be made dependant on the performance of the agents in all tasks.¹²⁴

2. Reciprocal Fairness and Repeated Interactions as Self-Enforcing Complements.

Even if self-enforcing bonus contracts are more efficient *on average* than legally enforceable contracts that condition only on verifiable performance, the assumption of heterogeneity nevertheless implies a higher variance in the returns for the self-enforcing

¹²³ Bengt Holmstrom & Paul Milgrom, *Multi-Task Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design*, 7 J. L. Econ. & Org. 24 (1991).

¹²⁴Fehr, Klein and Schmidt, *supra* note --at 26-29.

alternative. If the parties are risk neutral, the variance will not matter and they would predictably choose the more efficient contract. But one might expect many of the individual contracting parties in the sample to be risk averse.¹²⁵ The puzzle, then, is why might individual contractors strongly prefer the indefinite bonus alternative?¹²⁶ One plausible hypothesis is that even though cooperative patterns based on reputation and repeated interactions may be weak in any particular case, individuals learn to reciprocate because reciprocation pays off in so many ongoing transactions over time. This suggests that cooperative behavior is self-reinforcing. Successful cooperation that generates a reputation for trustworthiness or produces returns in ongoing transactions is consistent with self-interest and also causes parties to learn to care more about the other's payoff. This, in turn, strengthens an individual's willingness to reciprocate voluntarily even where the prospect of repeat dealings is quite low.¹²⁷

Moreover, in the transactions represented by the sample cases, other cooperative influences are clearly present to some degree even if they may not be sufficient *by themselves* to make the promises credible. Here the hypothesis is that the various self-enforcing mechanisms--reputation, repeated interactions and reciprocity--are complements. There is some experimental evidence that supports this claim. Brown, Falk and Fehr compared the effort levels of agents in a one-shot Gift Exchange Game with the effort levels in a similar game in which repeated interaction was an additional, material incentive.¹²⁸ They found that effort levels in the one-shot interaction was above the level predicted by pure self-interest (thus implying a significant fraction of reciprocal agents) but that the repeated interaction condition caused a significant increase in the effort level.

¹²⁵ In twelve of the eighteen indefinite bonus cases both of the parties were either individuals or sole proprietors. See Table 2 *infra*.

¹²⁶It is tempting to suggest that the experimental subjects were presumably risk averse as well. However, while each interaction was one-shot, an experimental session consisted of ten different rounds against ten different contracting partners. Thus, the experimental subjects playing the bonus contract could presumably diversify across the entire session. Diversification is not as readily accomplished in one-shot interactions in the real world.

¹²⁷Experiments by van Dijk, Sonnemans and van Winden indicate that successful cooperation through repeated interactions strengthens the parties willingness to take other's interests into account. F. Van Dijk, J. Sonnemans, & F. van Winden, *Social Ties in a Public Good Experiment*, J. Public Econ. (Forthcoming 2003).

¹²⁸M. Brown, Armin Falk & Ernst Fehr, *Incomplete Contracts and the Nature of Market Interactions*, Institute for Empirical Research in Economics, University of Zurich, Working Paper # 38 (2001).

It is not entirely clear why this complementarity exists between repeated interactions and reciprocal fairness. One conjecture is that the properties of incentives created by repeated interactions are very similar to the properties of incentives created by invitations to reciprocate. Both self-enforcing incentives are imposed implicitly and ex post while the incentives created by legal enforcement are imposed explicitly and ex ante.¹²⁹ Thus, for example, in a repeat game framework a principal can punish a selfish agent ex post without risking offending a cooperator by announcing in advance a sanction for inadequate efforts.

Casual empiricism supports the hypothesis that self-enforcing mechanisms are complements and, especially in multi-tasking contexts, may motivate parties to write indefinite bonus contracts. Perhaps the most prevalent example of such contracts is in academic employment. Many, if not most, academic employment contracts resemble the indefinite bonus agreements described above. The principal (say, a law school dean) makes a legally binding base salary offer to the agent (the individual faculty). The salary is invariant to levels of effort above a bare minimum verifiable performance (typically acts of moral turpitude or complete failure of performance). But many verifiable measures of performance are discarded (e.g., maintaining elemental teaching competence, prompt performance of specific governance responsibilities and participation in the intellectual life of the institution). At the same time, the principal requests additional non-verifiable performance (quality research, devoted attention to teaching and shared governance responsibilities, etc.) and promises an indefinite bonus (merit raises in the future). Both the enhanced performance and the bonus are indefinite terms and thus are not legally enforceable under the common law rule.

The standard academic contract is, therefore, largely self-enforcing. Clearly, self-interested cooperation makes the respective promises at least partially credible. Repeated interactions (merit raises awarded in the past motivate non-verifiable performance in anticipation of raises in the future) as well as reputation (the dean's reputation for good judgment and even-handedness) motivate non-verifiable performance by faculty. But both reputation and repeated interactions are

¹²⁹Fehr & Falk, *the Psychological Foundations of Incentives*, supra note — at 19-20.

insufficient by themselves to make the promises to perform and to reward performance fully credible. Faculty can move to other institutions thus creating an end game problem that undermines the discipline of repeated interactions. Moreover, reputation is relatively weak because of strong norms against sharing bonus information among faculty. Thus, it is plausible that the additional incentive effects of reciprocity complement the self-enforcing patterns of cooperation based on reputation and repeat play. In combination, these effects motivate a contractual design that dominates the alternatives of a trust contract (lockstep raises) or an enforceable incentive contract that ties compensation to verifiable tasks such as the number of students taught or number of papers published (creating a multi-tasking problem).¹³⁰

3. Comfort Agreements (or Agreements to Agree) as a Screen for Self-Enforcement.

The assumption of heterogeneity--some folks behave fairly and some exhibit self-interest--implies that intentionally indefinite agreements (that rely exclusively on reciprocal fairness) are not first-best efficient. That conclusion is supported by both the experimental evidence and the evidence of transactional breakdown from the sample of litigated cases. The evidence of inefficiencies in self-enforcing bonus contracts may offer a plausible explanation for the common use of legally unenforceable “comfort agreements.” To understand why, recall from the sample data set that these “comfort agreements” are deliberately indefinite agreements that look to the formation of a future relationship. Some are in the form of formal letters of intent but most are more informal agreements.¹³¹ They include agreements to lease space in a shopping mall,¹³² to execute an executive compensation agreement,¹³³ to sell an insurance agency,¹³⁴ to enter into a

¹³⁰ American Law Deans Association, *Report on Faculty Salary and Compensation Plans* (2000).

¹³¹ See Table 2 *infra*.

¹³² See *OfficeMax, Inc. v. Sapp*, 132 F. Supp. 2d 1079 (M.D. Ga. 2001).

¹³³ *Stout v. Fisher Industries, Inc.*, 603 N.W. 2d 52 (1999).

¹³⁴ *Hunt v. Coker*, 741 So.2d 1011 (Miss. App. 1999).

partnership,¹³⁵ to license the construction of a golf course,¹³⁶ and to invest in a proposed gambling casino.¹³⁷ In each case, the courts held that the indefinite terms in the comfort agreement constitute it an unenforceable “agreement to agree.”¹³⁸

The question we have posed earlier recurs: Why do parties write these intentionally unenforceable agreements? It is well known that more formal letters of intent are part of a continuous negotiation process.¹³⁹ The parties intention is to go to the next step and convert the agreement into an enforceable contract. Typically, the enforceable contract is complex and final negotiation turns on several variables unknown to the parties at the time the letter of intent is executed. In these cases, therefore, the parties may be learning about each others’ competence¹⁴⁰ or waiting to see if a market may shift makes this no longer an attractive venture.¹⁴¹ But the comfort agreements in the sample cases do not fit the conventional model. Here the informal agreement and the future transaction are separated in time and are not part of an ongoing negotiation process. Moreover, the comfort agreement, like the indefinite bonus contract, is simple in form and offers clearly-defined opportunities to reciprocate.¹⁴² One hypothesis is that these agreements, rather than being designed for parties to learn about each other’s competence or about market conditions, are designed to allow parties to learn about each other’s taste for reciprocal fairness. To be sure, self-enforcing bonus agreements are more efficient *on average* than legally enforceable agreements that condition only on verifiable measures of performance. But the

¹³⁵ Bergman v. DeIulio, 826 So. 2d 500 (Fla. App. 2002).

¹³⁶ Homestead Golf Club, Inc., v. Pride Stables, 224 F. 3d 1195 (10th Cir. 2000).

¹³⁷ Mays v. Trump Indiana, Inc., 255 F.3d 351 (7th Cir. 2001).

¹³⁸ See Table 2 infra.

¹³⁹ See Johnston, *Communication and Courtship*, supra note – at–.

¹⁴⁰ See e.g., Hoffman v. Red Owl Stores, Inc., 133 N.W. 2d 267 (Wisc. 1965); Johnston, *Communication and Courtship*, supra note — at —.

¹⁴¹ Ronald J. Gilson & Alan Schwartz, *Explaining MACS* (mimeo 2002).

¹⁴² See TAN infa.

assumption of heterogeneity means that individual promisees risk responding with enhanced efforts to a selfish promisor who subsequently fails to pay any bonus. This inefficiency could be reduced if the parties were able effectively to screen for reciprocally fair contracting partners.

The willingness to make an indefinite promise that conditions on non-verifiable factors is not, by itself, a reliable signal that the promisor is a reciprocally fair type. As we have seen, selfish promisors will copy the signal since the invitation to reciprocate will induce greater efforts from the promisee and thus greater returns to the promisor. But the typical comfort agreement has an additional feature. The agreement itself creates opportunities to reciprocate *in advance* of the formalization of the relationship between the parties. Recall, for example, the facts of *Hunt v. Coker*,¹⁴³ where the parties entered into a comfort agreement expressing their joint desire for Coker to sell and Hunt to buy Coker's insurance agency.¹⁴⁴ The events that followed are instructive. Upon execution of the agreement, Hunt relocated his agency to Coker's building. Both Coker and Hunt worked their own accounts, essentially operating separate businesses but sometimes brokering policies together. Over time, Coker became unhappy with the quality of Hunt's work and informed him the offer to sell would not be honored.

Why should selfish performance by Hunt during this interim period matter to Coker? Recall that the purchase price agreed upon by the parties was one of several alternatives each of which was based on the percentage of commissions that renewed over five, six or seven years. Thus, the sale price of the agency was directly linked to Hunt's non-verifiable efforts. Viewed in this light, the transition period created by the comfort agreement takes on new meaning. Coker's numerous opportunities to observe Hunt's behavior may have served as a means of screening for a reciprocally fair business partner. Hunt's subsequent shirking then would have signaled that he was a "selfish" type and that the ultimate sale agreement would not be self-enforcing.

¹⁴³ 741 So. 2d 1011 (Miss. App. 1999).

¹⁴⁴The document provided for a purchase date and set out several options for the purchase price, including 45% of the commissions that renew over five years, or 40% that renew over six years, or 35% that renew over seven years. The agreement provided that Hunt would consolidate his location with Coker as soon as possible with each party paying their own expenses until the date of sale. See 741 So.2d 1011, 1013.

There are several ways that comfort agreements such as the one in *Hunt* can function as a screening device. First, the agreement provides opportunities to observe the behavior of the promisor in response to opportunities to reciprocate. This gives the promisee the opportunity to acquire personal knowledge of the character of the promisor.¹⁴⁵ To be sure, some promisors may attempt to “act fair” during the interim period and return to selfish behavior when the future relationship is cemented. But, in addition to observation, the comfort agreement serves to separate in time the opportunity to reciprocate from the subsequent transaction that is ultimately contemplated. It is thus an example of the expenditure of time for the purposes of communication.¹⁴⁶ In this case, potential transactors are not only subject to observation but they must spend considerable time in the process of executing an agreement that is only self-enforcing.¹⁴⁷ Since reciprocally fair individuals are able to capture the returns to general information about their type through an enhanced reputation for cooperation, they are more willing to spend resources to provide this information.¹⁴⁸ Much like queuing behavior, the expenditure of time is itself a signal; in this case it may signal a preference for reciprocity.

In sum, while the available evidence is only sufficient for intelligent speculation, the sample of litigated cases suggests that the widespread use of informal comfort agreements may be a function of their properties as screens for voluntarily cooperative behavior. Parties entering

¹⁴⁵George Akerloff, *The Market for “Lemons:” Quality Uncertainty and the Market Mechanism*, 84 Qu. J. Econ. 355, 366 (1970).

¹⁴⁶A. Michael Spence, *Time and Communication in Economic and Social Interaction*, 87 Qu. J. Econ. 651 (1973).

¹⁴⁷Many formal letters of intent indicate explicitly that the parties do not intend to be legally bound thus reducing even more the threat of subsequent litigation by a disappointed promisee. None of the informal comfort agreements in the litigated cases contained a term expressly declining legal enforcement. It is puzzling why this is so, particularly in those agreements where legal counsel assisted in the drafting process. One inference is that parties prefer to leave the question of potential legal enforcement deliberately ambiguous. See TAN *infra*.

¹⁴⁸Another way of expressing the point in the text is that a selfish party can perhaps dupe a single promisee and capture a larger surplus but, once her selfish nature is revealed (the bonus is not paid), she is unable to replicate the transaction at low cost. On the other hand, a reciprocally fair party will not only earn a portion of the enhanced surplus in this transaction, but, by revealing her type (the bonus is paid), she will be able to develop a reputation for fairness that can be exploited at lower cost in future transactions. See Joseph E. Stiglitz, *the Theory of Screening, Education and the Distribution of Income*, 65 Am. Econ. Rev. 283, 287 (1975).

relationships in which measures of performance are non-verifiable will benefit from personal knowledge of the fairness preferences of their contracting partners. Such knowledge will permit them to enter transactions in which key measures of performance are non-verifiable without serious risk.

B. Should Courts Refuse to Enforce Intentionally Incomplete Agreements?

In the preceding discussion I have argued that the theory of reciprocal fairness significantly expands the domain and the potency of self-enforcing contracts. But the evidence also shows that self-enforcement does not achieve first-best efficiency. Given a heterogeneous population of selfish and fair individuals, the self-sanctions for deterring breach of promise are imperfect. Thus, a logical question is why shouldn't the legal system combine reciprocity and legal enforcement. Would it not be more efficient (and more fair) for courts to fill gaps in intentionally incomplete agreements where the evidence ex post is that the transaction broke down (presumably because one of the parties was selfish)?

To make the question concrete, return to the contracting example of the New York buyer and the Indian seller described above in Part II(D). Assume that the New York buyer elects the self-enforcing indefinite contract, and that the seller delivers goods that are unsatisfactory to the buyer. The buyer, in turn, declines to pay a bonus. Subsequently, the buyer sues for breach of contract, seeking rescission and damages, and the seller counterclaims for a "reasonable" bonus. Should the law seek to complete this contract for the parties?

The answer to this question requires a court to select between the two distinct approaches to the problem of indefinite agreements. One approach is to follow the modern presumption and enforce the agreement notwithstanding the indefinite terms. For example, a court could order a "fair" result by imposing an equitable adjustment – a reasonable bonus in return for a reasonable effort-- taking all of the contextual factors into account as they appear at the time of

adjudication.¹⁴⁹ This outcome follows from the premise that these intentionally indefinite contracts create reciprocal duties and courts should enforce those duties when the parties cannot agree.¹⁵⁰ Alternatively, the court could follow the precedent of the cases invoking the doctrine of indefiniteness and dismiss the buyer's claim for damages as well as the seller's claim for a reasonable bonus. Under this common law approach, the evidence that the incompleteness was intentional would generate an inference that the parties did not intend to be legally bound. The cause would be dismissed, and the losses would lie where they fall.

Which approach is best? At first blush, the robust evidence of reciprocal behavior seems to require that the law acknowledge explicitly the value of reciprocal fairness. One might argue, for example, that courts should create default standards of reasonableness to bolster the implicit patterns of reciprocity that have broken down in this particular instance.¹⁵¹ Or, alternatively, one might suggest that, where a contract creates an opportunity for beneficial reciprocity, a court should enforce such a duty by imposing an equitable adjustment when one of the parties has

¹⁴⁹Contract law typically fills such gaps with broad standards of reasonableness when the conditions for more precise rules are not met. And, in fact, reasonableness standards are common because the conditions for creating efficient bright-line default rules are very difficult to meet. See Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, supra note -- at--.

¹⁵⁰To enforce this agreement, the court must determine what a "reasonable" effort by the seller would entail and, if that performance is satisfied, what "reasonable" bonus by the buyer is required. The reasonableness standard thus provides a basis for enforcing either the additional effort obligations of the seller or the bonus payment obligations of the buyer or both. A court might use either an ex ante or an ex post perspective in enforcing these agreements. If the court simply fills in the gaps ex post, subsequent courts (and statutory drafters) should not be tempted reify the result in this particular case as a default standard. Ex post adjustment, in short, argues for a "black box" style of decision-making. It follows that courts following this approach should be hospitable to attempts by later parties to alter or eliminate the emergent standard in their contracts. The ex ante approach aims to create defaults that would be useful to subsequent parties writing similar agreements. Unfortunately, default standards of reasonableness seldom are good fits. In the first place they create moral hazard. Even where the resource costs to the state are low, such default terms are inefficient to the extent that they specify terms that condition on unobservable or unverifiable information. To be sure, subsequent parties can, in theory, reject the state rules and select their own alternatives. But even if opting out is relatively easy, an inefficient default functions as a "tax" on private contracting.

¹⁵¹ See e.g., Richard E. Speidel, *Court-Imposed Price Adjustments Under Long-Term Supply contracts*, 76 Nw. U. L. Rev. 369 (1981).

apparently behaved selfishly.¹⁵²

For several reasons, however, the theory of reciprocal fairness supports adherence to the common law indefiniteness doctrine. First, the prospect of legal enforcement can create a moral hazard risk that may deter parties from writing self-enforcing agreements. To see why, return to the example in Part II(D) of the Indian seller and the New York buyer. Assume the parties have chosen the indefinite bonus contract. Now assume that courts abandon the common law rule on indefiniteness and adopt the modern presumption of enforcement. This implies that a court will, with positive probability, entertain a breach of contract claim and try to decide what is fair. The prospect that the agreement might be legally enforceable creates an enhanced risk of cheating by the seller. A seller who produces low quality goods may now threaten to sue for breach of contract, claiming that she produced high quality goods and was entitled to a bonus. Since high quality is not verifiable, the buyer faces an enhanced risk of hold-up. The problem is that the legal enforcement rule itself creates a motive for a seller to sue, apart from any assumption that fair sellers will sue because they are angry. Given what a court will do, litigation can maximize any seller's expected profits and thus the hold-up threat is credible.

Moreover, if a court will potentially enforce a bonus promise against the buyer where the seller has, in fact, delivered low quality goods, it no longer is rational for buyers to offer the intentionally incomplete bonus agreement.¹⁵³ Thus, the prospect of legal enforcement—and its associated moral hazard risk—may motivate the buyer to abandon the bonus agreement altogether. This would be an inferior outcome because, as we have seen, the self-enforcing bonus agreement is socially efficient: high quality generates a greater surplus than low quality and there is a positive

¹⁵² See e.g., Robert A. Hillman, *Court Adjustment of Long-term Contracts: An Analysis Under Modern Contract Law*, 1987 Duke L.J. 1.

¹⁵³ To be sure, a promisee will sometimes expressly agree to a “best efforts” or “reasonable efforts” contract in which a court may potentially be asked to determine whether the level of efforts given by the promisor were “best” or “reasonable.” Typically, such levels of effort will be non-verifiable. But parties generally will choose such broad standards that condition on non-verifiable factors only where the contract is otherwise structured so that the party with discretion has incentives to take both parties interests into account, thus obviating the need for courts to evaluate the non-verifiable measures of performance. See Schwartz & Scott, *Contract Theory and The Limits of Contract Law*, supra note — at —; Gilson & Schwartz, *Explaining MACS*, supra note —.

probability that the contract will generate high quality. Now consider the alternative: The court denies relief on the grounds that it cannot verify whether the seller delivered high quality goods and thus cannot grant a remedy. The non-enforcement approach restores the buyer's incentive to offer the self-enforcing bonus contract.

The preceding argument shows that an attempt legally to enforce the non-verifiable terms in deliberately incomplete contracts is socially inefficient. A further question is whether the same conclusion holds if courts attempt to enforce the *verifiable* terms in agreements that otherwise depend on self-enforcement. Recall that in the example of the Indian seller and the New York buyer the parties initially faced a choice between an obligationally complete contract (merchantable quality goods for a \$50,000 price) and an indefinite bonus contract (a \$40,000 base price with a bonus of up to \$20,000 in return for delivery of high quality goods). Now suppose that the parties reach an agreement that combines the features of both options. The buyer offers a price of \$50,000 with a bonus of as much as \$10,000 if the seller delivers high quality goods satisfactory to the buyer. In addition, the contract specifies that buyer can recover \$10,000 liquidated damages if the seller does not provide *at least* merchantable quality goods. Merchantable quality, recall, is verifiable to a court. In this example, then, the parties have agreed to a verifiable obligation that, if severable from the indefinite bonus, would be legally enforceable. Assume the seller delivers non-merchantable goods that do not "pass without objection in the trade" and the buyer seeks recovery of the stipulated damages. The seller claims, in turn, that the entire agreement is indefinite and unenforceable.

It is tempting to suggest that granting a remedy to the buyer in this instance is socially optimal. After all, this portion of the agreement was definite and certain. The breach by the seller does not implicate the indefinite promise of a bonus for high quality performance. But the critical question is whether legal enforcement of the verifiable terms would adversely affect the potency of reciprocity as a means of enforcing the non-verifiable terms of the agreement. In other words, the question is how do explicit, legal incentives to abide by the terms of a contract interact with motivations of fairness and reciprocity?

A recent series of experiments by Fehr and Gächter using a variation of the Gift Exchange Game examine this question.¹⁵⁴ In the control version of these experiments, buyers offer a trust contract at a stipulated price and a desired level of effort. If the seller accepts this offer, she is free to choose her actual level of effort. The higher the level of effort chosen, the more costly to the seller. In each experimental session, there are eight sellers and six buyers, each of whom can contract with only a single seller.¹⁵⁵ All participants know that there is an excess supply of sellers. Thus, in principle, the buyers can enforce very low prices and selfish sellers have no incentive to provide any effort above the minimum level. The results, by now predictable, are that many buyers in fact offer quite generous prices, and many sellers respond with greater efforts, substantially above the selfish choice.¹⁵⁶ In the second version of the experiment, the buyers are allowed to impose a sanction (e.g., a monetary fine) if the seller shirks on her effort obligation.¹⁵⁷ Thus, this version in essence adds the dimension of legal enforcement to the incomplete trust contract just described (one might, for example, think of the fine as damages for breach of contract). The results show that the average price offered by buyers and the average effort of sellers is *lower* in the presence of explicit, legally enforceable sanctions. Without legal enforcement, reciprocal fairness generates high levels of performance. But once the interaction is

¹⁵⁴ Ernst Fehr & Simon Gächter, *Do Incentive Contracts Undermine Voluntary Cooperation?*, University of Zurich, Institute for Empirical Research in Economics, Working Paper #34 (2002); same authors, *Fairness and Retaliation: The Economics of Reciprocity*, 14 J. Econ. Pers. 159 (2000).

¹⁵⁵ Experiments have shown that prices and quality of efforts are the same regardless of whether the number of sellers is below or above the number of buyers. This indicates that competition has little or no effect on outcomes in these gift exchange markets, J. Brandts & G. Charness, *Do market Conditions Affect Gift Exchange? Evidence from Experimental Markets with Excess Supply and Excess Demand*, Working Paper, Institute de Analisis Economico, Barcelona (2001).

¹⁵⁶ In a large field study, Truman Bewley provides empirical evidence supporting this conclusion. See Truman Bewley, *A Depressed Labor Market as Explained by Participants*, 85 Am. Econ. Rev. 250 (1995); TRUMAN BEWLEY, *WHY WAGES DON'T FALL DURING A RECESSION* (2000). The managers who were interviewed stressed that “workers have so many opportunities to take advantage of employers that it is not wise to depend on coercion and financial incentives alone as motivators. Employers believe that other motivators are necessary, which are best thought of as having to do with generosity. See Fehr and Gächter, *supra* note — at 11.

¹⁵⁷ The probability of verifying shirking is set at 1/3 and determined by a roll of the dice. *Id.*

backed by legal sanctions, reciprocity declines and overall performance is reduced.¹⁵⁸ This result suggests that implicit incentives based on reciprocity and explicit, legally enforceable performance duties may indeed be in conflict with each other.¹⁵⁹ In particular, explicit incentives may “crowd out” behavior based on reciprocal fairness.¹⁶⁰

The “crowding out” phenomenon observed in the experiments may seem counterintuitive, particularly since other experiments have shown that a combination of self-enforcing incentives actually increases contracting efficiency.¹⁶¹ Why might reciprocal fairness and repeated interactions be complements while reciprocal fairness and legal enforcement are substitutes? One conjecture is based on the fact that legal enforcement is structured as a zero sum game in which the promisee threatens ex ante to sanction the promisor for subsequent nonperformance. The

¹⁵⁸ The quality of efforts by sellers and amount of voluntary cooperation were lower in the obligatorily complete contract because: 1) shirking by sellers increased even where the expected costs of shirking exceeded the expected returns to the seller; 2) reciprocity in the form of generous offers by buyers and reciprocating efforts by sellers vanished almost completely. Where the expected returns to shirking were positive, sellers chose the minimum quality in the vast majority of cases, and, when buyers offered more generous prices above the minimum, sellers did not reciprocate with greater efforts. See Fehr & Gächter, *supra* note — at 15-18.

¹⁵⁹ Other experiments have also found that combining legal enforcement with non-legal mechanisms—such as social norms—can have counterproductive effects. See, e.g., Iris Bohnet, Bruno Frey, & Steffen Huck, *More Order with Less Law: On Contract Enforcement, Trust and Crowding*, John F. Kennedy School of Government, Harvard University (KSG Working Paper No. 00-009 (2000) (in a contract enforcement experiment in which the probabilities of sanctions for breach are variable, the propensity to perform is non-monotonic; performance is higher at both low and high probability states and lower at intermediate probabilities of enforcement) ; Uri Gneezy & Aldo Rustichini, *A Fine is a Price*, 29 J. Legal Stud. 1 (2000) (the introduction of price incentives for parents who are late picking up their children from day care increases the frequency of late-coming parents); Ernst Fehr & Bruno Rockenbach, *Incentives and Intentions—The Hidden Rewards of Economic Incentives*, University of Zurich, (mimeo 2000) (voluntary cooperation by agents is enhanced in a trust game where principals voluntarily refrain from threatening to impose a legal sanction for shirking). There is also an extensive literature in social psychology that considers the crowding out of intrinsic motivation by extrinsic monetary rewards. See e.g., E. Deci, R. Koestner, & R. Ryan, *A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation*, 125 Psych Bull. 627 (1999). In this literature the monetary incentive is set exogenously by the experimenter and not by a principal. Thus, it does not test for reciprocity and voluntary cooperation.

¹⁶⁰ Clearly, the experimental research on crowding out is still in a preliminary stage. In particular, economists do not know why and under which conditions reciprocity and voluntary cooperation will be undermined by legal enforcement. In particular, Fehr and Gächter have shown that framing effects influence the crowding out phenomenon. Thus, for example, the levels of reciprocity are considerably greater if the explicit incentive is framed as a bonus from a base offer rather than as a fine for nonperformance, even though the economic effects of the “carrot” are equal to that of the “stick.” See Fehr & Gächter, *supra* note — at 26-30.

¹⁶¹ See TAN *supra* (discussing the complementarity between reciprocal fairness and repeated interactions).

explicit, ex ante nature of legal sanctions may thus undermine the instinct to reciprocate. Fair types may simply regard legal enforcement as unfair since they are willing to reciprocate voluntarily, while selfish types may interpret the threat of sanction through legal enforcement as a signal that the promisee is unlikely to be a reciprocator.¹⁶² The same explicit threat does not exist in the case of repeated interactions where the implicit sanction (terminating the relationship) is imposed ex post after the shirking has been observed. In that sense, ex post punishment may be perceived as “fairer” than the ex ante announcement of damages for breach.

The evidence that voluntary cooperation may be undermined by explicit legal obligations is a further argument in favor of the formalist approach to contract law that has been historically followed by the common law. The instinct to preserve a space for reciprocal fairness may explain the common law preference for simple, binary, winner-take-all legal rules.¹⁶³ Within the framework of a few clear rules, parties can respond to implicit opportunities to behave reciprocally, even in one shot interactions. Obviously, these effects are magnified in relational settings in which parties can “lock in” to a long-term cooperative equilibrium.¹⁶⁴

Notwithstanding the power of reciprocal fairness, contractual breakdowns nonetheless occur, in part because, as the experimental evidence suggests, there is both self interest and reciprocity in the world. But given such a world, the puzzle of indefinite contracts may now be solved. Contracting parties may simply have learned to behave under two sets of rules: an explicit (and rigid) set of rules for legal enforcement and an implicit (flexible) set of rules for self-enforcement. It may be, therefore, that the great lesson for courts is that any effort to judicialize

¹⁶² The story that explains crowding out is based only on intelligent speculation. A legal sanction is always framed as a threat. To the extent that intentions matter in motivating reciprocity, the ex ante threat may be interpreted as a hostile intention. A liquidated damages clause in a contract may thus be perceived as an indication of distrust. If sellers perceive the damages clause as a hostile act they may be less willing to put forth the same quality of efforts as compared to a situation in which the first mover sends a trusting signal.

¹⁶³ See Robert E. Scott, *A Relational Theory of Default Rules for Commercial Contracts*, 19 J. Legal Stud. 597, 611-12 (analyzing the doctrines of consideration, perfect tender, mistake, excuse and breach as binary legal rules that rules assign risks on an all-or-nothing basis).

¹⁶⁴ Scott, *Conflict and Cooperation in Long-Term Contracts*, supra note --- at ---.

preferences for fairness will destroy the very informality that makes reciprocity so effective in the first instance. The experimental evidence suggests that the contemporary judicial instinct to fill gaps in incomplete contracts with broadly applicable standards of reasonableness and fair treatment may actually undermine the very norms of fairness that the legal system seeks to advance. If so, it is critical that courts do not generalize about the potency of reciprocal fairness from the litigated cases, as these disputes only arise when the implicit incentives themselves have broken down. The cases give no clue of the power of reciprocal fairness in situations where these social preferences may have been effective in enforcing incomplete contracts between perfect strangers. Understood in the broader context of a system that relies on *both* legal and self-enforcement, the wisdom of the common law approach becomes clearer.¹⁶⁵

CONCLUSION

The doctrine that declares unenforceable an agreement that is uncertain or indefinite in its material terms is a core principle of the common law of contracts. Conventional academic wisdom holds that the doctrine is an artifact of a discredited legal formalism. It is assumed that contemporary American courts work to enforce incomplete contracts by filling gaps with broad standards of reasonableness and good faith. But in an important class of cases the conventional wisdom is misleading. A systematic review of the case law shows that courts continue to adhere to the indefiniteness doctrine, declining to enforce contracts where the parties have intentionally declined to condition performance on verifiable measures that could have been specified at relatively low cost.

This evidence is puzzling in two distinct respects. First, these intentionally incomplete agreements are inconsistent with the assumptions of contract theory that contracting parties will discard non-verifiable measures of performance but will contract over low-cost, verifiable measures. Second, the judicial decisions not to enforce these agreements are inconsistent with the

¹⁶⁵ Scott, *Relational Theory of Default Rules*, supra note --- at 614-15. The formal contract law that has survived the common law process serves as an effective complement to the more flexible mechanisms of reciprocal fairness. Any efforts to expand the law by adopting broad legal standards requiring “reasonable” behavior and/or “fair treatment” may (perversely) crowd out the opportunities for implicit enforcement through reciprocity.

assumption of most contemporary theorists that courts can (and do) enhance the fairness and the efficiency of contractual exchange by filling contractual gaps whenever possible.

The alternative of self-enforcement is the most plausible explanation for why parties intentionally write incomplete agreements even in isolated transactions between relative strangers. Where self-enforcement is effective, it is more efficient than legal enforcement. The traditional understanding is that self-enforcement is limited to contexts where reputation or repeated interactions are sufficient to make promises credible. Recent work in experimental economics suggests, however, that reciprocal fairness is a potent additional means of self-enforcement. Whether reciprocal fairness is a learned behavior that derives from the benefits of cooperation in repeated interactions or is an intrinsic motivation remains an open question. But the important point is that the evidence suggests that the domain of self-enforcing contracts extends to isolated interactions between strangers. Intentionally incomplete contracts of the sort routinely dismissed by courts have a common feature: the agreements are simple in form, clear in commitment and are structured to create opportunities for parties to reciprocate in ways that expand the contractual surplus.¹⁶⁶

One of the robust findings of the fairness experiments is that we live in a heterogeneous world in which a significant fraction of individuals behave as if they are reciprocally fair and an equal fraction respond only to self-interest. This phenomenon of heterogeneity provides an explanation for another category of intentionally incomplete agreements. Parties commonly write informal “agreements to agree” (what I have termed “comfort agreements”). Among other purposes, these agreements can function as means of screening for reciprocally fair business partners; providing an opportunity for each party to observe the other’s character over time.

Legal analysts have a further concern: should courts intervene to enforce these indefinite agreements when reciprocity fails? The answer to the legal policy question depends on whether

¹⁶⁶ The key features of these agreements—simplicity and moral clarity— may be the best explanation of how parties can tell whether they are in a legally enforceable environment, where fairness is crowded out, and a nonenforceable environment where reciprocity has room to function.

legal enforcement is a complement to or a substitute for self-enforcement through reciprocity. The available evidence suggests that legally enforcing troublesome agreements may be counterproductive. If courts use principles of fairness to legally enforce non-verifiable promises, the parties will abandon these self-enforcing agreements. Even where courts only enforce verifiable promises, there is some evidence that judicial intervention crowds out the instinct to reciprocate. Legal enforcement, then, will have negative effects in reducing the potency of reciprocal fairness in the great majority of cases where self-enforcement is currently effective.

The evidence that legal sanctions and voluntary cooperation are incompatible both explains and justifies the determination of contemporary courts to strictly police the boundary between the two domains. Perhaps the puzzle of deliberately incomplete contracts is only a conundrum for academic lawyers, whose occupational hazard is to assume that without law there is no social order. To the contrary, there are strong reasons to believe that fairness matters, and because of those reasons the law should leave space for reciprocity to work.

TABLE 1
ENFORCEABLE INCOMPLETE CONTRACTS

STATE	CASE CITATION	TYPE OF TRANSACTION ¹⁶⁷	PARTIES ¹⁶⁸
CA	Denver Darling, Inc. v. Controlled Environments Const. Inc., 108 Cal. Rptr. 2d 213 (2001)	Relational	Sole Prop v. Sole Prop.
CA	Krantz v. BT Visual Images, L.L.C., 107 Cal. Rptr. 2d 209 (2001)	Relational	Ind. v. Corp
CN	Bartomeli v. Bartomeli, 783 A.2d 1050 (Conn. App. 2001)	Relational	Ind. v. Ind.
CN	Willow Funding Co., L.P. v. Grencom Assoc., 779 A.2d 174 (Conn. App. 2001)	Relational	Corp. v. Corp.
CN	The Detroit Inst. of Arts Founders Society v. Rose, 127 F. Supp. 2d 117 (D. Conn. 2001)	Relational	Corp v. Ind.
DC	Howell, USA, 51 Fed. Cl. 516 (Fed. Cl. 2002)	Relational	Sole Prop. v. Corp
DC	Ace Federal Reporters, Inc., v. Barram, 226 F.3d 1329 (2000)	Relational	Corp. v. Corp.
DC	Affordable Elegance Travel, Inc. v. Worldspan, L.P., 774 A.2d 320 (D.C. App. 2001)	Relational	Corp v. Corp
GA	Jones v. Hill, 539 S.E. 2d 893 (Ga. App. 2000)	Relational	Ind. v. Ind.
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES

¹⁶⁷Transactions are characterized as either relational or discrete indicating the extent to which the parties are (or were) in ongoing relationships rather than isolated or one-shot exchange transactions.

¹⁶⁸ Parties are coded as either individuals, sole proprietors or corporations

GA	Tattersall Club Corp. v. White, 501 S.E. 2d 851 (Ga. App. 1998)	Relational	Corp. v. Ind.
GA	Kueffer Crane & Hoist Service, Inc. v. Passarella, 543 S.E. 2d 113 (Ga. App. 2000)	Relational	Ind. v. Corp.
IA	Helm Financial Corp. v. Iowa Northern Railway Co., 214 F. Supp. 2d 934 (N.D. Ia 2002)	Relational	Corp v. Corp
IA	Gallagher, Langlos & Gallagher, P.C. v. Burco, 587 N.W. 2d 615 (Ia. App. 1998)	Relational	Corp v. Ind.
ID	General Auto Parts Co., Inc. v. Genuine Parts Co., 979 P.2d 1207 (1999)	Relational	Corp. v. Corp.
ID	Kohring v. Robertson, 44 P.3d 1149 (Id. 2002)	Relational	Ind. v. Sole Prop.
IN	McLinden v. Coco, 765 N.E.2d 606 (2002)	Relational	Sole Prop. v. Sole Prop.
MA	Schwartz v. Schering-Plough Corp., 53 F.Supp. 2d 95 (1999)	Relational	Ind. v. Corp.
MD	Vargo v. Clark, 716 N.E. 2d 238 (Ohio App. 1998)	Relational	Ind. v. Ind.
MD	Giannaris v. C.Y. Cheng, Sr., 219 F.Supp. 2d 687 (2002)	Relational	Ind. v. Ind.
MD	Lacy v. Arvin, 780 A.2d 1180 (Md.App. 2001)	Relational	Ind. v. Ind.
MO	Raskas Foods, Inc. v. Southwest Whey, Inc., 978 S.W. 2d 46 (Mo. App. 1998)	Relational	Corp v. Corp.
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES

MO	American Laminates, Inc. v. J.S. Latta Co., 980 S.W. 2d 12 (Mo. App. 1998)	Relational	Corp v. Corp.
NJ	D & N Property Management & Development Corp., Inc. v. The Copeland Companies, 127 F. Supp. 2d 456 (S.D.N.Y. 2001)	Relational	Corp. v. Corp.
NY	Non-Linear Trading Co., Inc. v. Braddis Associates, Inc., 675 N.Y.S. 2d 5 (N.Y. App. 1998)	Relational	Corp. v. Corp.
NY	Gonzalez v. Don King Productions, Inc., 17 F. Supp. 2d 313 (S.D. N.Y. 1998)	Relational	Ind. v. Sole Prop.
OH	DeBoer Structures (USA) Inc., v. Shaffer Tent & Awning co., 233 F. Supp. 2d 934 (S.D. Oh. 2002)	Relational	Corp. v. Corp.
OH	Nilavar v. Osborn, 738 N.E. 2d 1271 (2000)	Relational	Ind .v. Ind.
OH	DeBoer Structures (USA) Inc. v. Shaffer Tent & Awning Co., 233 F. Supp. 2d 934 (2002)	Relational	Corp. v. Ind.
OK	McCurdy Group LLC v. American Biomedical Group, Inc. (Fed. Appx. 822 (10thCir. 2001)	Relational	Corp. v. Corp.
PA	Atlas Corp. v. TransWorld Comm. Inc., 155 F.3d 659 (3d Cir. 1998)	Relational	Corp. v. Corp.
TN	Davidson v. Holtzman, 47 S.W. 3d 445 (Tenn. App. 2001)	Relational	Ind. v. Ind.
TX	Herrmann Holdings Ltd. v. Lucent Technologies, Inc. 302 F. 3d 552 (D.C. Tex. 2002)	Relational	Corp. v. Corp.
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES

TX	Esquenazi v. Sardar, 2002 WL 519684 (Tex. App. 2002)	Relational	Ind. v. Corp.
VI	Morton v. Hewitt, 202 F. Supp. 2d 394 (D.V.I. 2002)	Relational	Ind. v. Ind.

TABLE 2UNENFORCEABLE INDEFINITE AGREEMENTS¹⁶⁹

STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES	TYPE OF CONTRACT
CA	Halvorsen v. Aramak Uniform Services, Inc., 77 Cal. Rptr. 2d 383 (CA App. 1998)	Relational	Ind. v. Corp.	Indefinite bonus contract
CN	111 Whitney Ave., Inc. v. Commission of Mental Retardation, 802 A. 2d 117 (Conn. App. 2002)	Discrete	Ind. v. Corp.	Indefinite bonus contract
CN	Suffield Development Assoc., L.P. v. Society for Savings, 708 A.2d 1361 (Conn. 1998)	Discrete	Corp. v. Corp.	Comfort agreement
CN	Coady v. Martin, 784 A.2d 897 (Conn. App. 2001)	Discrete	Ind. v. Ind.	Comfort agreement
CO	National Mortgage Corp. v. Greenwich Cap. Fin. Products, Inc., 53 Fed. Appx. 510 (10 th Cir. 2002)	Relational	Corp v. Corp	Deliberately incomplete (end-game)
CO	Di Francesco v. Particle Interconnect Corp., 39 P.3d 1243 (Colo.App. 2001)	Relational	Sole Prop. v. Corp	Agree to agree (settlement)
FLA	University Creek Assoc. II, Ltd. v. Boston American Financial Group, Inc., 100 F. Supp. 2d 1337 (1998)	Discrete	Corp. v. Corp.	Comfort agreement
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES	TYPE OF CONTRACT

¹⁶⁹ Cases are coded by states, type of transaction and nature of parties as in Table 1, supra. In addition, the cases are coded by “Type of Contract”: inadvertent incompleteness, deliberately incomplete agreement, indefinite bonus-type agreement, general agreement to agree, comfort agreement, and formal letter of intent.

FLA	Bergman v. DeJulio, 826 So.2d 500 (Fla. App. 2002)	Discrete	Ind. v. Ind.	Comfort agreement
GA	Burns v. Dees, 557 S.E. 2d 32 (Ga. App. 2001)	Relational	Ind. v. Ind.	Indefinite bonus contract
GA	Bulloch South Inc. v. Gosai, 550 S.E. 2d 750 (Ga. App. 2001)	Discrete	Ind. v. Sole Prop.	Inadvertence
GA	OfficeMax Inc. v. Sapp, 132 F.Supp.2d 1079 (M.D.Ga. 2001)	Discrete	Corp. v. Sole Prop.	Letter of Intent
GA	Zurich Am. Ins. Co. v. Gen'l Car & Truck Leasing, 2002 WL 31720637 (Ga.App. 2002)	Discrete	Corp. v. Corp.	Inadvertence
GA	Gill v. B & R International, 507 S.E. 2d 477 (Ga. App. 1998)	Relational	Ind. v. Corp.	Indefinite bonus contract
GA	Mooney v. Mooney, 538 S.E. 2d 864 (2000)	Discrete	Ind. v. Ind.	Indefinite bonus contract
GA	Faulkner v. Hood, 539 S.E. 2d 886 (2000)	Discrete	Ind. v. Ind.	Indefinite bonus contract
GA	Aukerman v. Witmer, 568 S.E. 2d 1232 (Ga. App. 2002)	Relational	Ind. v. Ind.	Deliberately incomplete
ILL	Wilkes v. Accustaff, Inc., 427 F. Supp. 2d 842 (1999)	Relational	Ind. v. Corp.	Indefinite bonus contract
ILL	Brines v. Xtra Corp., 304 F.3d 699 (2002)	Relational	Ind. v. Corp.	Deliberately incomplete
IN	Don Webster Co., Inc. v. Indiana Western Express, Inc., 161 F. Supp. 2d 959 (S.D. Ind. 2001)	Relational	Corp. v. Corp.	Indefinite bonus contract
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES	TYPE OF CONTRACT

IN	Mays v. Trump Indiana, Inc., 255 F.3d 351 (7 th Cir. 2001)	Discrete	Ind. v. Corp.	Agreement to agree
IO	Schaller Telephone Co. v. Golden Sky Systems, Inc., 298 F. 3d 736 (8 th Cir. 2002)	Discrete	Corp. v. Corp.	Agreement to agree
KS	Sprint Corp. v. DeAngelo, 12 F. Supp. 2d 1188 (D.C. Kan. 1998)	Discrete	Corp. v. Ind.	Indefinite non-compete clause
KY	AutoChannel, Inc. v. SpeedVision Network, LLC, 144 F. Supp. 2d 784 (W.D. Ky. 2001)	Discrete	Sole Prop. v. Corp	Agreement to agree
MD	Doe v. Doe, 712 A. 2d 132 (Md. App. 1998)	Relational	Ind. v. Ind.	Indefinite bonus contract
ME	Larson v. Johnson, 184 F.Supp. 2d 26 (D.Me. 2002)	Relational	Ind. v. Ind.	Indefinite bonus contract
MN	Richie Co., LLP v. Lyndon Ins. Grp., Inc., 2002 WL 31930312 (8 th Cir. 2002)	Relational	Sole Prop. v. Sole Prop.	Comfort agreement
MO	Smith v. Hammons, 63 S.W. 3d 320 (Mo.App. 2002)	Discrete	Ind v. Ind.	Indefinite bonus contract
MS	Hunt v. Coker, 741 So. 2d 1011 (Miss. App. 1999)	Discrete	Ind. v. Ind.	Comfort agreement
NC	Miller v. Rose, 532 S.E. 2d 228 (2000)	Discrete	Ind. v. Ind.	Comfort agreement
ND	Stout v. Fisher Industries, Inc., 603 N.W. 2d 52 (N.D. 1999)	Discrete	Ind. v. Sole Prop.	Comfort agreement
NE	Cheloha v. Cheloha, 582 N.W. 2d 291 (Neb. 1998)	Discrete	Ind. v. Ind.	Indefinite bonus contract
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES	TYPE OF CONTRACT

NY	Missigman V. USI Northeast, Inc., 131 F. Supp. 2d 495 (S.D. N.Y. 2001)	Relational	Ind. v. Corp.	Agreement to agree
NY	F & K Supply Inc. v. Willowbrook Dev. Corp., 732 N.Y.S. 2d 734 (2001)	Discrete	Sole Prop. v. Sole Prop.	Settlement agreement
NY	Sugarman v. MCY Music world, Inc., 158 F.Supp. 2d 316 (S.D.N.Y. 2001)	Discrete	Ind. v. Sole Prop.	Indefinite bonus contract
NY	Gorodensky, H & H v. Mitsubishi Pulp Sales (MC) Inc., 92 F. Supp.2d 249 (2000)	Discrete	Corp. v. Corp.	Letter of Intent
NY	Lowinger v. Lowinger, 733 N.Y.S.2d 33 (N.Y.App. 2001)	Relational	Ind. v. Ind.	Indefinite bonus contract
NY	Cleveland Wrecking Co. v. Hercules Const. Corp., 23 F. Supp.2d 287 (E.D.N.Y. 1998)	Discrete	Sole Prop. v Sole Prop.	Indefinite bonus contract
NY	Robert Plan Corp. v. Ross Perot, 718 N.Y.S.2d 50 (N.Y.App. 2000)	Discrete	Sole Prop. v. Ind.	Deliberately incomplete
NY	Strauss Paper Co., Inc. v. RSA Exec. Search, Inc., 688 N.Y.S. 2d 641 (N.Y.App. 1999)	Discrete	Corp. v. Corp.	Inadvertence
NY	Jalor Color Graphics, Inc. v. Knoll Pharmaceutical Co., 26 Fed. Appx. 38 (2 nd Cir. 2001)	Relational	Corp. v. Corp.	Indefinite bonus contract
NY	Wechsler v. Hunt Health Systems, Inc., 186 F.Supp. 2d 402 (S.D.N.Y. 2002)	Discrete	Corp. v. Corp.	Deliberately incomplete
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES	TYPE OF CONTRACT

OH	Allied Erecting & Dismantling Co., Inc. v. UNECO Realty Co., 765 N.E. 2d 420 (2001)	Discrete	Sole Prop. v. Sole Prop.	Indefinite bonus contract
OH	Kostelnik v. Helper, 770 N.E.2d 58 (Ohio 2002)	Discrete	Ind. v. Ind.	Inadvertence
OH	Ullmo v. Gilmour Academy, 273 F.3d 671 (6 th Cir. 2001)	Discrete	Ind. v Sole Prop.	Deliberately incomplete
OK	Vice v. Conoco, Inc. 150 F. 3d 1286 (10 th Cir. 1998)	Relational	Ind. v. Corp.	Indefinite bonus contract
PA	Aircraft Guaranty Corp. v. Strato-Lift, Inc., 103 F. Supp. 2d 830 (2000)	Discrete	Corp. v. Corp.	Sales contract
SD	Fisher v. Fisher, 645 N.W. 2d 841 (S.D. 2002)	Relational	Ind. v. Ind.	Comfort agreement
TN	Doe v. HCA Health Services of Tennessee, Inc., 46 S.W.3d 191 (Tenn. 2001)	Discrete	Ind. v. Corp.	Deliberately Incomplete
TX	In re United States Brass Corp., 277 B.R. 326 (Bankr. E.D. Tex. 2002)	Discrete	Ind. v. Corp	Inadvertence
TX	Fort North Ind. School Dist. v. City of Fort Worth, 22S.W. 3d 831 (2000)	Relational	Corp. v. Corp.	Comfort agreement
TX	John Wood Group USA, Inc. v. ICO, Inc., 26 S.W. 3d 12 (2000)	Discrete	Corp. v. Corp.	Letter of Intent
TX	Oakrock Exploitation Co. v. Killam, 87 S.W.3d 685 (2002)	Discrete	Ind. v. Sole Prop.	Agreement to agree
UT	Homestead Golf Club, Inc. v. Pride Stables, 224 F.3d 1195 (2000)	Discrete	Corp. v Sole Prop.	Comfort agreement
STATE	CASE CITATION	TYPE OF TRANSACTION	PARTIES	TYPE OF CONTRACT

VA	Blazer Homes Corp. v. VMIF/Anden Southbridge Venture, 2002 WL 31841002 (E.D. Va. 2002)	Discrete	Sole Prop. v. Ind.	Letter of Intent
WI	Chirichillo v. Prasser, 30 F. Supp. 2d 1132 (D.C. Wisc. 1998)	Discrete	Ind. v. Ind.	Indefinite bonus contract

April 16, 2003