PRE-CONTRACTUAL RELIANCE

Lucian Arye Bebchuk*
Omri Ben-Shahar**

*Professor of Law, Economics, and Finance, Harvard Law School.
**Lecturer, Department of Economics, Tel-Aviv University.

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ABSTRACT

During contractual negotiations, but before entering a contract, parties might make reliance expenditures. Such expenditures would increase the surplus should a contract be made, but would be wasted if not. This paper analyzes parties' decisions to invest in pre-contractual reliance under alternative legal regimes. In the absence of any pre-contractual liability, parties' investments in reliance will be socially suboptimal. In contrast, under a regime of strict liability for all reliance expenditures, reliance investments will be socially excessive. These two results lead to an analysis which explores how "intermediate" liability rules could be designed to induce optimal reliance decisions (and what information courts would need to have to implement such rules). Finally, the analysis studies the effects of the rules governing pre-contractual liability on parties' decisions to enter into contractual negotiations.

*Professor of Law, Economics, and Finance, Harvard Law School.
**Lecturer, Department of Economics, Tel-Aviv University.

I. INTRODUCTION

Before a contract is made, there is generally a period (sometimes a long one) in which the parties negotiate the contract's terms. During this period, the parties can make reliance expenditures. These are investments that raise the value of performance if the contract is formed but are wasted otherwise.

For example, in negotiating an employment contract, the employee may quit other jobs, acquire knowledge about the new task or turn down competing offers,[1] while the employer may prepare tasks and facilities for the potential employee. Similarly, in negotiations of a financial loan, the borrower may invest in expending its business and the creditor may devote effort to monitoring the borrower's business. These investments increase the value of the completed transaction, but are squandered if the transaction does not go through.

If the contract is entered into, it stipulates how to divide the surplus which is generated in part by the reliance investments. However, if negotiations break down and the contract is not entered into, it is up to the legal system to determine who bears the cost of the sunk reliance expenditures. Is the party that relied entitled to any recovery from the other party?

By now, there is a vast body of literature analyzing the decisions of parties to a contract to make specific (reliance) investments *after* entering the contract.[2] This literature focuses on how contractual terms and legal rules can be designed to induce efficient levels of such specific investment. Here, in contrast, the focus is on specific investments made *prior* to entering a

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[1] This was the situation in *Grouse v. Group Health Plan, Inc.*, 306 N.W.2d 114 (Minn. 1981); *Hunter v. Hayes*, 533 P.2d 952 (Colo. 1975).

[2] See, e.g., Williamson (1975,1979), Shavell (1980), Rogerson (1984), Cooter (1985), Hart and Moore (1988), and Bebchuk and Shavell (1991).

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contract. In particular, in studying these pre-contractual decisions, our focus is on how the legal

rules that govern pre-contractual relationships influence these decisions.

Under current U.S. law, the traditional rule asserts that there is no pre-contractual

liability. Parties are free to break off negotiations at any time, in which case each party bears

the sunk cost of its reliance investments.[3] In recent decades, however, some grounds for

liability have been recognized. A party may be liable for the other party's reliance costs on

three possible grounds: if it induced this reliance through some misrepresentation; if it

benefitted from the reliance; or if it made a specific promise during negotiations.[4] Most

European jurisdictions share the no-liability approach, but in some countries liability arises once

negotiations have reached advanced stages.[5]

This paper seeks to present a systematic analysis of pre-contractual reliance decisions

under alternative legal rules. It examines legal regime that could best induce socially optimal

reliance decisions. And it analyses the effect of the legal regimes and resulting reliance

decisions on ex ante choices whether to enter into contractual negotiations.[6]

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[3] See Farnsworth (1987, p. 221).

[4] For the first ground, *see Restatement (Second) of Torts,* §§ *525,530 (1977)* and *Markov v. ABC Transfer & Storage Co.,* 76 Wash.2d 388, 457 P.2d 535 (1969). The second ground for imposing pre-contractual liability is exemplified in *Hill v. Waxberg,* 237 F.2d 936 (1956) and *Pancratz Co. v. Kloefkorn-Ballard Construction and Development,* 720 P.2d 906 (Wyo., 1986). Finally, for the third ground, see *Hoffman v. Red Owl Stores,* 26 Wis.2d 683, 133 N.W.2d 265 (Wis., 1965) and *Drennan v. Star Paving* Co., 51 Cal.2d 409, 333 P.2d 757 (1958).

[5] See Wils (1992), 72-74, for survey of civil law jurisdictions. Wils points out that under Dutch law, for example, a party who breaks off advanced negotiations is liable for expenses made by the other party. See also Hondius (1991).

[6] Other papers that have explored the subject from an economic point of view are the prior work by Wils (1992) and the more recent independent works by Katz (1996) and Craswell (1996). While Katz or Craswell do not develop a model of pre-contractual reliance, they examine informally the effect of the absence or presence of pre-contractual liability on reliance decisions. The model

The analysis of the paper starts with an examination of reliance in the absence of any pre-contractual liability, i.e., under a regime in which a party cannot get any reimbursement for its reliance expenditures if there is no contract. In this case, there will be systematic under-investment in reliance. The intuition underlying this result is simple. A party that relies bears the full cost of the reliance. But the benefit of the reliance, which is the increased surplus that the contract produces, will be divided among the contractual parties and thus will not be enjoyed fully by the party that relies. Thus, the incentives to rely are diminished by the extent of the other party's ability to capture some of the benefits of the reliance.

This under-investment result is robust. It exists also in the case of bilateral reliance -- the case in which both sides invest in reliance. One might conjecture that mutual reliance will produce a "hostage taking" balance, through which the under-investment problem will be eliminated. The analysis shows that this conjecture is not valid. Indeed, in considering the reliance level of a given party, the analysis demonstrates that the fact that the other side relies not only fails to ensure that the level will be optimal, but might even lead to a further decline in that level.

Next, the paper considers reliance decisions under an extreme regime of "strict" pre-contractual liability. Under this regime, whenever a party makes reliance expenditures and the negotiations break down, the other party will be eligible for full reimbursement of those reliance expenditures. In this case, it is shown that there will be systematic over-investment in

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developed in this paper, however, goes beyond the analysis in these papers in several important respects. First, the analysis of the paper is not limited to the case in which one of the parties relies; it covers the general case in which both sides might expend reliance investments. Second, the paper studies, and this is a major focus of its analysis, how "intermediate" liability rules could best be designed to improve reliance decisions. Thirdly, the paper incorporates into its analysis the ex ante decisions of parties as to whether or not to enter into contractual negotiations.

reliance. The reason is that, under this regime, a relying party does not bear the cost of its reliance. If the contract is not entered into it gets its investment back, and if the contract is entered into it gets a greater share of the surplus, given its credible threat to walk away and impose the reliance cost on the other party. Consequently, as long as reliance raises the surplus and the party can capture some part of the incremental surplus, the party will make the reliance investment. Since the party does not bear any of the cost of reliance but captures some of its benefit, the party overinvests.

The above results concerning the no-liability and the strict liability regimes prepare the way for the subsequent analysis of "intermediate" liability regimes. Here, the analysis explores how such rules could be designed to induce socially optimal levels of reliance. The analysis identifies three rules that could -- if courts always had the relevant information -- be depended on to induce such levels. Under one rule, a sharing rule, each party is required to compensate the other for a fraction of its reliance costs. Under the second rule, liability is imposed only on a party that bargains in a certain "obstructionist" manner. Under the third rule, liability is strict but limited not to exceed the cost of the socially optimal level of reliance. It is demonstrated that, if courts had the required information, each of these three rules would induce optimal reliance decisions. The analysis then compares the three rules in terms of both their informational requirements and their pricing effects. As will be discussed, each of the rules requires a certain (different) information which courts might lack.

The analysis then identifies an important difference between cases in which parties did and did not reach a "preliminary", non-formal agreement on the contract's basic terms. When such a preliminary agreement is reached, and later one of the parties refuses to enter into a formal contract based on the terms of that agreement, there is a strong case for making that

party liable for reliance expenses made following the preliminary agreement. This conclusion is shown to be consistent with the position taken by courts in an important line of cases.

Finally, after analyzing the effects of the alternative liability regimes on reliance decisions made during contractual negotiations, the analysis moves back one step in time to consider parties' incentives to enter into contractual negotiations. For the different regimes, the analysis considers (i) the set of cases in which entrance into negotiations would produce a surplus, and (ii) the incentives of parties to enter into negotiations whenever such negotiations would produce a surplus. In contrast to what might be initially thought, the analysis demonstrates that a regime of no contractual liability would not necessarily lead to the greatest incidence of parties' entering into contractual negotiations.

The paper is organized as follows. Section II presents the paper's framework of the analysis. Section III analyzes the regime of no pre-contractual liability, and Section IV analyzes the regime of strict pre-contractual liability. Section V examines the three intermediate liability regimes. Section VI analyzes the subset of cases in which a preliminary informal agreement is reached but the parties subsequently do not enter into a contract. Section VII explores the effects of the various rules on parties' ex ante decisions whether to enter into negotiations. Lastly, Section VIII offers some concluding remarks.
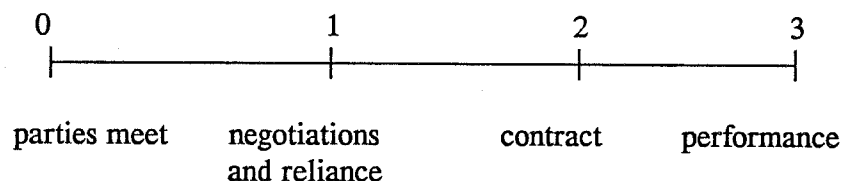
II. THE FRAMEWORK OF ANALYSIS

A. The Sequence of Events

Two risk-neutral parties, a buyer B and a seller S, meet. Initially, it will be assumed that the parties enter into contractual negotiations. In Section VII this assumption will be

relaxed, and we will consider the parties' decision whether or not to enter into contractual negotiations.

The timing of the parties' interaction is as follows:

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0               1               2               3
├───────────────┼───────────────┼───────────────┤

parties meet    negotiations    contract        performance
                and reliance
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At time 0 the parties meet and decide whether to negotiate a contract. At time 1 negotiation takes place over a possible transaction. At time 2 they either succeed or fail to enter into a legally binding contract. If the contract is entered into, it will be performed at time 3.

We assume that performance will provide B with a value V and will cost S an amount C. Let $G = V - C$ denote the gain from the transaction after time 2. It is assumed that $G > 0$, i.e., that the potential transaction between the parties is certain to yield a positive value. Subsequently, in Section VII we will allow for the possibility that $G < 0$.

At time 1, as negotiations take place, the parties may make reliance investments. These investments are useful in that they may raise G, either by raising V or by reducing C. Let R_b and R_s denote the cost of reliance investments for B and S, respectively.[7] We will consider two alternative cases, a case of unilateral reliance and a case of bilateral reliance.

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[7] It is assumed throughout that parties do not enter at time 1 a "preliminary agreement" allocating the costs of their reliance investments. In the Concluding Remarks Section of the paper this possibility will be discussed. It will be suggested that if the parties enter into such voluntary arrangements, they will likely design the optimal cost-shifting regime, one that will lead to efficient investment in reliance. Thus, the analysis in the paper can be regarded as an exploration of the optimal *default* rule -- the optimal rule to govern the relationships in which the parties did not affirmatively specify otherwise when they entered negotiations.

B. The Unilateral Reliance Case

In the unilateral reliance case it is assumed that only B can make reliance investments. B's investments affect both his value V and S's cost C. Specifically, if the transaction goes through, the surplus from it will be $G(R_b) = V(R_b) - C(R_b)$. It is assumed that up to some level, reliance yields positive but diminishing marginal value: $G'(R_b) > 0$ for $0 \leq R_b \leq \bar{R}_b$ and $G'(R_b) = 0$ for $R_b > \bar{R}_b$; $G''(R_b) < 0$ for $0 \leq R_b \leq \bar{R}_b$ and $G''(R_b) = 0$ for $R_b > \bar{R}_b$.

The efficient reliance investment in the unilateral case is the one that maximizes

$$G(R_b) - R_b. \tag{1}$$

Denote the efficient reliance by R_b^*. It satisfies the first order condition:

$$G'(R_b^*) = 1. \tag{2}$$

That is, it is efficient to raise R_b up to the point in which the marginal benefit in terms of added surplus is equal the marginal cost of reliance, 1.

C. The Bilateral Reliance Case

In the bilateral reliance case it is assumed that both sides can rely and affect the surplus from the transaction. If the transaction goes through, the surplus from it will be $G(R_b,R_s) = V(R_b,R_s) - C(R_b,R_s)$. The usual convexity assumptions are made: $G_1(R_b,R_s) > 0$ for $0 \leq R_b \leq \bar{R}_b(R_s)$ and $G_1(R_b,R_s) = 0$ for $R_b > \bar{R}_b(R_s)$; $G_2(R_b,R_s) > 0$ for $0 \leq R_s \leq \bar{R}_s(R_b)$ and $G_2(R_b,R_s) = 0$ for $R_s > \bar{R}_s(R_b)$; and $G_{11}(R_b,R_s) < 0$, $G_{22}(R_b,R_s) < 0$ wherever the first derivatives are strictly positive.

The efficient reliance investments in the bilateral case are the levels of R_b and R_s that maximize

$$G(R_b,R_s) - R_b - R_s. \tag{3}$$

Denote the efficient reliance levels by R_b^*, R_s^*. They satisfy the first order conditions:

$$G_1(R_b^*,R_s^*) = 1$$
$$G_2(R_b^*,R_s^*) = 1 \tag{4}$$

D. Bargaining

In either the unilateral or the bilateral case, it is assumed that if the contract is formed at time 2, it divides the surplus between the parties. The division of bargaining power between the parties is such that if they have to reach an agreement to create a surplus, they will divide it so that B is expected to get a fraction $0 \leq \theta \leq 1$ of the surplus and S is expected to get a fraction $1-\theta$ of the surplus. One interpretation of this formulation is a bargaining procedure in which one of the parties, whose identity is determined randomly, makes a take-it-or-leave-it offer, after which the bargaining ends. In this case, θ can stand for the likelihood of B being the offeror and $1-\theta$ is the likelihood of S being the offeror. For parts of the analysis below, it will be assumed that $\theta = \frac{1}{2}$, which is the case of equal bargaining power, but the general case will also be considered.

Lastly, it is assumed that the parties have perfect information. That is, the structure of the interaction, including the functional form of $V(.)$ and $C(.)$ and the value of θ, is common knowledge.

III. RELIANCE IN THE ABSENCE OF PRE-CONTRACTUAL LIABILITY

Under this regime, a party cannot get reimbursed for any of its reliance expenditures in the event that a contract is not formed. As the analysis below demonstrates, in the absence of liability, parties will under-invest in reliance, both in the unilateral and the bilateral cases. We begin with a numerical example, illustrating the under-investment result.

A. Numerical Example

Suppose that in the absence of reliance investments prior to the contract, the cost of performance for S is 50 and the value of performance for B is 100. The parties are assumed to have equal bargaining power, so that if a contract is made, the price it sets divides the surplus equally among the parties. In addition, suppose B can invest 20 in reliance, thereby raising her value from performance to 130. From a social perspective, B's investment is desirable: it costs 20 and produces an incremental surplus of 30, thus yielding a net gain of 10. In the absence of pre-contractual liability, however, B will not make the investment. Without the investment, the contract will set the price of 75, and B stands to gain 100 - 75 = 25 from it. With the investment, the contract will set a price of 90 (midway between 50 and 130), and B will net 130 - 90 - 20 = 20. Thus, B is better off not investing.

The same under-investment result arises in the case of bilateral reliance. Suppose S can also make reliance expenditures. If S invests 20, he will reduce his costs of performance from 50 to 20. From a social perspective, S's investment is desirable, as it costs less than the added value it generates. However, absent pre-contractual liability, neither S nor B will make their investments. If S makes the investment, it costs him 20, yet it leads also to a reduction of 15 in

the price B pays, since the new price has to split a bigger surplus. Thus, S will gain 30 from having a reduced cost of performance, but will lose 35 from the investment cost and the adjusted price, so as to make the investment not worthwhile. This occurs regardless of whether B invests or not. A similar calculation will show that B will choose not to make her investment. In choosing its reliance level, each party bears the downside alone, but shares the upside through the mechanism of adjusted price. Thus, the parties' incentives to rely are diminished. We will now demonstrate this result more generally.

B. The Unilateral Reliance Case

Consider first the expected outcome of the bargaining, given a choice of R_b by B. If there is no liability for reliance costs, the upper bound of the bargaining range is $V(R_b)$ -- the highest price B might agree to pay (as R_b is already sunk); and the lower bound of the bargaining range is $C(R_b)$ -- the lowest price S might be willing to accept (as S bears no liability over R_b). Assuming the parties reach an agreement at a point within the bargaining range which reflects their relative bargaining power, the expected price will be

$$p = \theta C(R_b) + (1-\theta)V(R_b), \tag{5}$$

and B's expected gain from the transaction will be

$$V(R_b) - [\theta C(R_b) + (1-\theta)V(R_b)] =$$
$$= \theta[V(R_b) - C(R_b)] =$$
$$= \theta G(R_b).$$

That is, B's expected gain is a fraction θ of the surplus.

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Expecting this gain at time 2, B will choose a level of R_b that maximizes

$$\theta G(R_b) - R_b. \tag{6}$$

Denote the solution by $R_b{}^N$. It satisfies the first order condition:

$$\theta G'(R_b{}^N) = 1. \tag{7}$$

If the parties have equal bargaining power ($\theta = \frac{1}{2}$), expression (6) becomes:

$$\tfrac{1}{2}G'(R_b{}^N) = 1.$$

Comparing expressions (2) and (7), we can establish the following Proposition:

PROPOSITION 1. Under a regime of no pre-contractual liability, the buyer will under-invest in reliance.

Remark. The under-investment result arises from the divergence between B's private gain and the social benefit from reliance. From the social point of view, B should raise R_b as long as the benefit, in terms of increased surplus, exceeds the marginal cost of 1. From B's private point of view, however, it pays to raise R_b as long as her private benefit, in terms of the fraction of the surplus she can extract, exceeds her marginal cost of 1. Since B does not capture the full benefit of her reliance, but only a fraction θ of it, B is led to engage in too little reliance.

C. The Bilateral Reliance Case

In the case of unilateral reliance, as was shown, the absence of pre-contractual liability leads to under-investment. It might seem that with bilateral reliance, the under-investment

problem is alleviated and may even disappear. The intuition for this conjecture is the following. When only one party relies, the other party may walk away from negotiations without having incurred any cost. The risk of this occurrence is what drives the relying party to under-invest. When both parties rely, however, neither is inclined to walk away, having invested in the relationship. When the threat of such negotiation breakdown diminishes, so does the under-investment problem.

The following analysis demonstrates that this intuition is misguided. In fact, it may be the case that in the bilateral setting, the under-investment problem is intensified. We will show which factors determine the relative severity of the problem.

Conducting the analysis in a fashion similar to the unilateral case, we find that B's expected profit at time 2 will be $\theta G(R_b, R_s) - R_b$ and S's expected profit at time 2 will be $(1-\theta)G(R_b, R_s) - R_s$. Solving their respective maximization problems simultaneously, we arrive at the result that the actual levels of reliance chosen, (R_b^N, R_s^N), must satisfy:

$$\theta G_1(R_b^N, R_s^N) = 1$$
$$(1 - \theta)G_2(R_b^N, R_s^N) = 1$$

(8)

Comparing (4) and (8) we can establish the following Proposition:

PROPOSITION 2. (a) Under a regime of no pre-contractual liability, both parties will under-invest in reliance.

(b) Relative to the unilateral case, the problem of under-investment may be more or less severe in the bilateral case.

Remarks. (i) *Comparison of Reliance Levels under the Unilateral and Bilateral Cases.* Part (b)

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of the Proposition addresses the conjecture that under-reliance will be less severe in the bilateral reliance case. It suggests that the fact that the other party is also expected to rely does not necessarily raise each party's reliance investment, relative to the case in which the other party does not rely at all. In terms of the bilateral model, we can compare the investment levels of B in the two points. In the first point, when S invests 0 (the unilateral case), B sets R_b^N that solves

$$\theta G_1(R_b^N, 0) = 1.$$

In the second point, when S invests R_s^N (the bilateral case), B sets R_b^N that solves

$$\theta G_1(R_b^N, R_s^N) = 1.$$

At which point the level of R_b is greater depends on the cross-derivative, G_{12}. If $G_{12} < 0$, B's investment in the bilateral case will be even lower than in the unilateral case. This is a situation in which the parties' decisions are "strategic substitutes".[8] The positive level of reliance by S reduces the marginal value of B's investment and, in equilibrium, leads B to reduce her reliance investment. Conversely, if $G_{12} > 0$, B's under-investment problem will become less severe in the bilateral case. Here, the reliance investment by S increases the marginal value of B's investment and leads B to raise her reliance investment (a case of "strategic complements"). Lastly, if $G_{12} = 0$, which is the case where the marginal value of one party's investment is independent of what the other party does, then the bilateral case and the unilateral case would display identical levels of under-investment.

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[8] See Bulow, Geanakoplos and Klemperer (1985).

(ii) *No Credible Threat to Breakdown Negotiations.* The mere fact that both parties rely does not curtail the under-reliance problem. The fallacy of the opposite intuitive conjecture stems from the assumption that a non-relying party would have a more credible threat than a relying party to walk away from negotiations. But, regardless of a party's reliance, it does not have a credible threat to walk away from negotiations. A party considers more than merely its sunk reliance investment when deciding whether to walk away. A party who breaks down the negotiations is foregoing its share of the transaction surplus, regardless of whether it took part in investing for this surplus. Thus, neither in the unilateral case, nor in the bilateral case, is there a problem of negotiation breakdown. The only remaining reason for under-reliance is the fact that a party cannot capture the whole value of its reliance investment. Hence, a party will invest more in the bilateral case only if the other party's reliance raises the productivity of its own investment ($G_{12} > 0$).

IV. RELIANCE UNDER A STRICT LIABILITY REGIME

This Section will explore the incentives to make reliance investments in a regime of "strict" liability. Under this regime, any party that makes reliance investments can get fully reimbursed by the other party if no contract is ever signed. This is an extreme rule -- a party may be required to pay for the other party's reliance no matter what the circumstances surrounding the negotiation breakdown. Thus, even if the other party was "guilty" for the negotiation breakdown, or if the other party relied excessively, the rule of strict liability requires a party to make full reimbursement. This extreme rule is studied to provide a useful benchmark for the analysis. In presenting the polar case, we can subsequently (in Section V) examine the effects of more "plausible" liability regimes.

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A. The Unilateral Reliance Case

In the unilateral reliance case, a rule of strict liability guarantees the party who makes the reliance investment, B, full reimbursement of her reliance expenditures in the event that a contract is not formed.[9] The effect of this rule is to shift the boundaries of the bargaining range. Here, the highest price B might agree to is $V(R_b) - R_b$, as she no longer considers R_b to be sunk, and expects to be reimbursed for it in case there is no contract. Similarly, the lowest price S might be willing to accept is $C(R_b) - R_b$. Again, assuming the parties split the bargaining range at a point which reflects their relative bargaining power, the expected price will be

$$p = \theta C(R_b) + (1-\theta)V(R_b) - R_b, \tag{9}$$

and B's expected gain from the transaction will be

$$V(R_b) - [\theta C(R_b) + (1-\theta)V(R_b) - R_b] =$$
$$= \theta[V(R_b) - C(R_b)] + R_b =$$
$$= \theta G(R_b) + R_b.$$

Expecting this gain at time 2, B will choose R_b that maximizes $[\theta G(R_b) + R_b] - R_b$, or, simply, a level that maximizes $\theta G(R_b)$. Denote this level by R_b^L. It satisfies the first order condition:

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[9] The damages are assumed to be equal to R_b because this is the measure applied in most American cases. See Farnsworth (1987, p. 223-5). The expectation measure of damages cannot be an applicable measure in most situations since, at the pre-contractual stage, the parties have not yet set a price. The special set of cases in which a preliminary agreement over the price exists will be dealt with later.

$$G'(R_b^L) = 0, \tag{10}$$

which implies that $R_b^L \geq \bar{R}_b$. Assuming that B will raise her investment in reliance only as long as its marginal value is positive, and will not raise her investment if the marginal increase in surplus is 0, we have:

$$R_b^L = \bar{R}_b$$

Comparing R_b^L with the socially optimal level of reliance R_b^*, we can establish:

PROPOSITION 3: Under a regime of strict pre-contractual liability, the buyer overinvests in reliance.

Remark. The intuition underlying this result can be explained as follows. The over-investment result arises from the fact that B captures some of the gains from her reliance investment without effectively bearing any of its cost. B's ability to recover all of her expenditures if a contract is not formed is translated into the contractual price in a way that shifts the entire cost of reliance to S. Consequently, no matter how small a fraction of the surplus B can capture, B will invest in R_b as long as such investment increases the total surplus.

B. The Bilateral Reliance Case

Under the strict liability regime, if a contract is not formed, each party must fully compensate the other party for its reliance investment. Similar to the analysis of the unilateral case, B will choose a level of R_b that maximizes $\theta G(R_b, R_s) - R_s$ and S will choose a level of R_s that maximizes $(1-\theta)G(R_b, R_s) - R_b$. The resulting levels (R_b^L, R_s^L) satisfy

$$G_1(R_b^L, R_s^L) = 0$$

$$G_2(R_b^L, R_s^L) = 0 \tag{11}$$

Comparing conditions (4) and (11), we can establish:

PROPOSITION 4. Under a rule of strict pre-contractual liability, each party chooses a level of reliance investment that is excessive, given the other party's investment.

Remarks. (i) *Intuition.* As in the unilateral case, the over-investment result arises from the fact that a party enjoys all the gains from its reliance investments, without effectively bearing any of the costs. If the contract is not formed, the party enjoys full reimbursement. And if a contract is formed, the price it sets would shift by the entire magnitude of the reliance investments, reflecting each party's ability to impose liability on the other and to recover all of its costs.

(ii) *Comparison to the First-Best Level of Reliance.* Proposition 4 does not state that the investment level of each party will necessarily be excessive relative to the optimal level defined by condition (4), but only relative to the investment level that is optimal given what the other party actually chooses. To illustrate, consider B's reliance. She chooses R_b^L that solves $G_1(R_b^L, R_s^L) = 0$, whereas given the choice of R_s^L by S, her optimal investment should be lower, at a level that solves $G_1(R_b^L, R_s^L) = 1$. But if R_s^L is sufficiently excessive, it may be that $R_b^L < R_b^*$. In particular, if $G_{12} < 0$, the high investment by S may shift the range of levels in which B's investment is productive. If, as a result of this shift, $R_b^* > \bar{R}_b(R_s^L)$, B will be led to invest less than the first-best level.

The analysis in this Section reaches the conclusion that full liability for pre-contractual reliance leads to excessive reliance. In the next Section, we will explore whether the liability

regime can be refined so as to produce more efficient reliance results.

V. INTERMEDIATE REGIMES OF PRE-CONTRACTUAL LIABILITY

The previous Sections examined two polar regimes, no-liability and strict liability, and demonstrated that neither can lead parties to make efficient pre-contractual reliance investments. In this Section we will present three "intermediate" liability regimes that, in theory, could produce optimal reliance. However, each of the three regimes requires courts to have knowledge of certain parameters (different in each regime) which may be hard to verify. The analysis below will demonstrate the efficiency of each regime and discuss the difficulties in their implementation.

A. Sharing of Reliance Expenditures

Under this rule, each party has to bear part of the cost of the other party's reliance expenditures in the event that a contract is not formed. In the unilateral reliance case, B and S share B's reliance expenditures; in the bilateral case, each party bears part of the total reliance costs -- that is, pays for part of the other party's cost and gets reimbursed for part of its own cost.

1. *The Unilateral Reliance Case*

Let us begin by considering the case in which the parties have equal bargaining power ($\theta = \frac{1}{2}$). In this case, a rule that specifies that in the event that there is no contract, S must pay half of B's expenditures, would produce the efficient level of R_b.

To see why this sharing rule works, consider the bargaining outcome under this rule.

The highest price B can agree to pay is $V(R_b) - \frac{1}{2}R_b$, a price that reflects the fact that she can get reimbursed for $\frac{1}{2}R_b$. Similarly, the lowest price S can agree to is $C(R_b) - \frac{1}{2}R_b$, again reflecting S's potential share of liability. Given their relative bargaining power, the expected price will be

$$p = \frac{1}{2}C(R_b) + \frac{1}{2}V(R_b) - \frac{1}{2}R_b,$$

and B's expected gain from the transaction will be

$$V(R_b) - [\frac{1}{2}C(R_b) + \frac{1}{2}V(R_b) - \frac{1}{2}R_b] =$$
$$= \frac{1}{2}[G(R_b) + R_b].$$

Expecting this gain at time 2, B will choose R_b that maximizes $\frac{1}{2}[G(R_b) + R_b] - R_b$, or, simply, a level that maximizes $\frac{1}{2}[G(R_b) - R_b]$. Solving this maximization problem yields the first order condition

$$G'(R_b) = 1,$$

which is the condition for the socially optimal level of reliance, R_b^*.

In cases in which parties have unequal bargaining power ($\theta \neq \frac{1}{2}$), the equal sharing rule does not lead to efficient reliance. In such cases, we need a rule that equates B's share of the surplus with her share of the reliance cost. As the following proposition states:

PROPOSITION 5: Under a sharing rule that has S compensate B for a fraction $1-\theta$ of B's reliance expenditures, the efficient level of reliance arises.

Remarks. (i) *Intuition.* The reason that this sharing rule works is that it equates the fraction of

the cost that B bears with the fraction of the surplus that she can capture. B captures a θ-fraction of the incremental surplus that is created when R_b is raised. Under the equal sharing rule, B bears a θ-fraction of the incremental cost of R_b. Thus, the two externalities -- the uncaptured surplus and the "free" reliance expenditures -- balance out and B's decision is not distorted.

(ii) *Information Needed.* The problem with a sharing rule that is dependent on θ is in the informational requirement it places on courts to evaluate θ. Since the parties' relative bargaining power, as measured by θ, depends on a multitude of factors, many of which are not verifiable in court, it is not plausible to assume that courts will be able to evaluate θ accurately. The informational problem is particularly acute in light of the contra-factual nature of the evaluation of θ, as liability arises in cases in which the negotiated contract was *not* formed.

2. *The Bilateral Reliance Case*

In the bilateral reliance case, the sharing rule stipulates that B and S will share the total cost of reliance incurred by both parties, in the event that a contract is not formed. Begin again by considering the case in which the parties have equal bargaining power ($\theta = \frac{1}{2}$). In this case, a rule that prescribes that in the event that there is no contract each party must reimburse the other for half of its reliance expenditures, would produce the efficient levels of R_b and R_s.[10]

In cases in which parties have unequal bargaining power ($\theta \neq \frac{1}{2}$) the equal sharing rule does not lead to efficient reliance. In such cases, we need a rule that equates a party's share of

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[10] The derivation of this result is similar to the analysis of the unilateral case.

the surplus with its share of the total cost of reliance. As the following proposition states:

PROPOSITION 6: Under a sharing rule that assigns B a fraction θ, and S a fraction $1\text{-}\theta$ of the total reliance costs, the efficient level of reliance arises.

Remarks. (i) *Intuition.* Under this sharing rule, B bears only a fraction θ of the cost of her reliance investment. Since she manages to extract a fraction θ of the surplus which her investment produces, the net externality from her reliance is zero, and the distortion vanishes. Similarly, S bears *$1\text{-}\theta$* of the cost of his reliance and extracts the same fraction, *$1\text{-}\theta$*, of the surplus which his reliance produces; thus, his choice is not distorted.

(ii) *Information Needed.* As in the unilateral case, the problem with a sharing rule that is dependent on θ is in its implementation. Courts ordinarily cannot observe θ, and thus cannot assign accurate comparative liability.

B. Liability Based on Fault

In analyzing the strict liability regime in Section IV, we noted that one of the features which makes it extreme is the fact that a party could be held liable for the other's reliance expenditures even if the party was in no way the one responsible for the negotiation breakdown. Thus, a party who is demanding "unreasonable" terms may be still get reimbursed for its reliance costs by the other party who is offering more reasonable terms.

The rule we consider here is one in which liability is imposed only on a party that can be clearly identified as "obstructionist" -- one that is unwilling to enter a contract with patently reasonable terms. Specifically, a party will get reimbursement if the other party is unwilling to enter the contract even if it secures him the entire surplus. Thus, B will get reimbursed unless

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she offers to pay a price which is lower than C (such that S is left with a negative payoff, given S's cost of performance C). And S will get reimbursed unless he demands a price greater than V (such that B is left with a negative payoff, given that B's valuation from performance is V).

1. *The Unilateral Reliance Case*

Under the rule that allows a party to get reimbursed only if it was not obstructionist, B will get reimbursed unless she offers to pay a price which is lower than C (such that S is left with a negative payoff, given S's cost of performance C), and S will get reimbursed unless he demands a price greater than V (such that B is left with a negative payoff, given that B's valuation from performance is V).

This rule shifts the parties' reservation values -- the values they expect to be left with, in case there is no contract. Under this rule, the reservation values of the parties are zero. No matter how much B relies, no party can be led to accept a negative payoff. B will not offer to pay less than $C(R_b)$, as this offer is now considered obstructive and will clearly be rejected, leaving B with a negative payoff, one which is lower than her reservation payoff. Similarly, S will not ask for a price greater than $V(R_b) - R_b$, since B will prefer to reject the offer and be reimbursed for her reliance expenses. Hence, the bargaining range lies between $C(R_b)$ and $V(R_b) - R_b$. The expected price that reflects the relative bargaining power will be

$$p = \theta C(R_b) + (1-\theta)[V(R_b) - R_b] \qquad (12)$$

and B's expected gain from the transaction will be

$$\theta G(R_b) + (1-\theta)R_b \qquad (13)$$

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B will therefore choose a level of R_b that maximizes $\theta G(R_b) + (1-\theta)R_b - R_b$, or, simply, a level that maximizes $\theta[G(R_b) - R_b]$. The first order condition to this problem is identical to condition that characterizes the optimal reliance investment. Thus, we can state:

PROPOSITION 7. Under a rule which assigns liability only to a party that offers unreasonable terms, the buyer makes optimal reliance investment.

Remarks. (i) *Intuition.* The reason that this rule leads to optimal reliance is that it prevents the buyer from shifting the entire cost of reliance to the seller, thereby choosing to rely excessively. Since the buyer cannot offer the seller a price that leaves the seller with a negative payoff, the buyer must bear the cost of her reliance whenever she is the one that makes the offer, that is, she bears an expected fraction θ of the reliance costs. Since the buyer also extracts a fraction θ of the surplus, there is no net externality distorting her choice.

(ii) *Information Needed.* While this rule leads to optimal unilateral reliance, the problem with it is that courts need to know the values of C and V in order to apply the rule. Yet, these parameters may vary across parties, and may depend on subjective or ad-hoc features which courts may find difficult to verify.

2. *The Bilateral Reliance Case*

Under the rule that allows reimbursement only when a party is not an obstructionist, B will get reimbursed unless she insisted on a price which is lower than $C(R_b,R_s) + R_s$ (such that S would be left with a negative payoff, given S's cost of performance $C(R_b,R_s)$ and reliance R_s), and S will get reimbursed unless he insisted on a price greater than $V(R_b,R_s) - R_b$ (such that B is left with a negative payoff, given B's valuation from performance $V(R_b,R_s)$ and reliance R_b).

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The bargaining range in this case lies between $C(R_b, R_s) + R_s$ at the bottom and $V(R_b, R_s) - R_b$ at the top. Thus, the expected price will be $\theta[C(R_b, R_s) + R_s] + (1-\theta)[V(R_b, R_s) - R_b]$. B will choose a level of R_b that maximizes $\theta[G(R_b, R_s) - R_b - R_s]$ and S will choose a level of R_s that maximizes $(1-\theta)[G(R_b, R_s) - R_b - R_s]$. The resulting levels of reliance are identical to the socially optimal levels of reliance. Thus, we can state:

PROPOSITION 8. Under a rule which assigns liability only to a party that offers unreasonable terms, both parties make optimal reliance investment.

Remarks. (i) *Intuition.* As in the unilateral case the rule succeeds in producing efficient behavior. The reason that this rule leads to optimal reliance is that it prevents parties from externalizing the entire cost of their reliance. Since the price a party offers cannot leave the other party with a negative payoff, a party must bear the cost of its reliance whenever it is the one that makes the offer.

(ii) *Information Needed.* This rule places an informational burden on courts -- to accurately observe the parameters V and C -- which may impede the implementation of optimal reliance.

C. Strict Liability Capped by the Level of Efficient Reliance

The rule we consider here imposes liability regardless of the conduct that led to the negotiation breakdown, but limits the magnitude of liability. The amount of reimbursement a party may get would equal its full reliance costs unless the reliance exceeded the efficient level. At that point, liability is capped and the relying party will only get reimbursed for the hypothetical cost of efficient reliance.

1. *The Unilateral Reliance Case*

In the unilateral case, the amount of reimbursement B can get will equal R_b, but is capped by R_b^*.[11] The bargaining range in this case lies between $C(R_b) - R_b^*$ at the bottom and $V(R_b) - R_b$ at the top. That is, the lowest price B may offer is $C(R_b) - R_b^*$, reflecting the fact that she can impose liability up to R_b^* on S. And the highest price S may demand is $V(R_b) - R_b$, reflecting his actual liability R_b.[12] Thus, the price agreed upon is expected to be

$$\theta[C(R_b) - R_b] + (1-\theta)[V(R_b) - R_b] \quad \text{if } R_b \leq R_b^*$$

$$\theta[C(R_b) - R_b^*] + (1-\theta)[V(R_b) - R_b^*] \quad \text{if } R_b > R_b^* \tag{14}$$

For any investment $R_b \leq R_b^*$ that she makes, B's expected net gain will be $\theta G(R_b) - R_b + R_b$. And if the investment level is $R_b > R_b^*$, B's expected net gain will be $\theta G(R_b) - R_b + R_b^*$. The level of R_b that maximizes her expected net gain equals R_b^*, the socially optimal level of reliance.[13]

Thus, we can state:

PROPOSITION 9. Under a rule which caps liability at the socially optimal reliance level, the buyer invests optimally in reliance.

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[11] Formally, the liability rule is $\min(R_b, R_b^*)$.

[12] Notice that B discounts the price she offers by R_b^*, the maximal liability she can impose on S, whereas S discounts the price he demands by R_b, the minimal liability he expects to bear.

[13] R_b^* is the level of reliance that maximizes $\theta G(R_b) - R_b + R_b$, B's expected gain when $R_b \leq R_b^*$. At this level, B's expected net gain is $\theta G(R_b^*)$, which is greater than the maximal net gain B can collect if $R_b > R_b^*$.

Remarks. (i) *Intuition.* The reason that this rule works is that it creates a discontinuity in B's returns to her reliance investment. Up to R_b^*, reliance is "free", as B can get fully reimbursed (the same rationale that applies in the strict liability regime). Above R_b^*, B pays the full cost of additional reliance, and since she can never get more than the full added surplus this additional reliance generates, she will not invest.

(ii) *Information Needed.* The problem with a rule that caps liability at the socially optimal level of reliance is the informational requirement it places on courts, to assess R_b^* accurately. Since R_b^* depends on various factors that are relationship-specific, such as the form of the functions $V(R)$ and $C(R)$, which the court may have difficulty evaluating, it is not plausible to assume that courts will be able to assess this value accurately.

2. *The Bilateral Reliance Case*

In the bilateral case, each party can get reimbursed for its actual investment in reliance, but no more than the efficient levels of reliance, R_b^* and R_s^*. The bargaining range in this case lies between $C(R_b,R_s) - R_b + R_s$ at the bottom and $V(R_b,R_s) - R_b + R_s$ at the top, with R_s and R_b restricted not to exceed R_s^* and R_b^*. That is, $C(R_b,R_s) - R_b^* + R_s$ is the lowest price B may offer, reflecting the fact that she can impose liability up to R_b^* on S but may bear actual liability of R_s. And $V(R_b,R_s) - R_b + R_s^*$ is the highest price S may demand, reflecting his actual liability R_b and the fact that he can impose liability of up to R_s^* on B. Thus, the price agreed upon is expected to be

$$\theta[C(R_b,R_s) - R_b + R_s] + (1-\theta)[V(R_b,R_s) - R_b + R_s], \qquad (15)$$

provided that $R_b \leq R_b^*$ and $R_s \leq R_s^*$. B's expected net gain from the transaction will be

$\theta G(R_b, R_s) - R_b + R_b - R_s$, and she will choose a level of $R_b \leq R_b^*$ that maximizes it. S's

expected net gain from the transaction will be $(1-\theta)G(R_b, R_s) - R_s + R_s - R_b$, and he will choose

a level of $R_s \leq R_s^*$ that maximizes it. The resulting levels are R_b^* and R_s^*, the socially optimal

levels of reliance.[14] Thus, we can state:

PROPOSITION 10. Under a rule which caps liability at the socially optimal reliance levels, the
parties invest optimally in reliance.

Remark. (i) *Intuition.* As in the unilateral case, this rule works because it sets a sharp, discrete

decline in the parties' returns to reliance investment at the point of optimal reliance. Up to that

point, each party counts reliance expenditures as "free", being fully shiftable to the other party.

Any additional reliance costs have to be borne in full, and thus cannot be cost-justified beyond

the efficient level of investment.

    (ii) *Information Needed.* The problem with a rule that caps liability at the socially

optimal levels of reliance is the informational requirement it places on courts, to assess R_b^* and

R_s^* accurately. As in the previous two intermediate pre-contractual liability rules, this rule has

the potential to induce optimal reliance, but its practical implementation requires more complex

litigation.

D. The Price Differences among the Rules

While the above three rules could potentially lead to the optimal levels of reliance (if

courts have the required information), from the parties' point of view they are not equivalent.

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[14] Under these levels, B's expected net gain is $\theta G(R_b^*, R_s^*) - R_s^*$. If B chooses $R_b > R_b^*$, her net
gain is $\theta G(R_b, R_s^*) - R_s^* - (R_b - R_b^*)$, which is necessarily lower. Similar calculations hold for S.

The rules may produce different contractual prices and thus generate different divisions of the surplus.

Under the sharing rule and the rule based on fault, the contractual price will equal

$$\theta C(R_b^*, R_s^*) + (1-\theta)V(R_b^*, R_s^*) + [\theta R_s^* - (1-\theta)R_b^*], \tag{16}$$

and the division of surplus is such that the buyer will get

$$\theta[G(R_b^*, R_s^*) - R_b^* - R_s^*] \tag{17}$$

and the seller will get

$$(1-\theta)[G(R_b^*, R_s^*) - R_b^* - R_s^*]. \tag{18}$$

Under the rule that caps liability at the optimal reliance cost, the expected price will be

$$\theta C(R_b^*, R_s^*) + (1-\theta)V(R_b^*, R_s^*) + [R_s^* - R_b^*], \tag{19}$$

and thus the buyer's expected gain will be

$$\theta G(R_b^*, R_s^*) - R_s^* \tag{20}$$

and the seller's expected gain will be

$$(1-\theta)G(R_b^*, R_s^*) - R_b^*. \tag{21}$$

Thus, the parties will be indifferent only between the sharing rule and the rule based on fault. The buyer will prefer the rule that caps liability at the cost of the socially optimal reliance if her expected gain will be greater under this rule, which will be the case if and only if

θR_b^* > $(1-\theta)R_s^*$. Intuitively, θR_b^* is the fraction of B's reliance costs which she bears under the sharing rule or the rule based on fault, but not under the capped-liability rule. $(1-\theta)R_s^*$ is the fraction of S's costs which B bears under the capped-liability rule, but not under the sharing rule or the rule based on fault. These two fractions of costs are the only differences between the rules. Thus, B will prefer the capped liability rule if the latter fraction is smaller than the former.

The difference between the prices and the expected distributions of the surplus will be demonstrated to have significance in shaping the parties incentives to enter negotiations. This aspect will be explored in Section VII below.

VI. Cases with a "Preliminary" Understanding over Terms

The rules examined in Section V above place significant informational requirements on courts, and thus are limited in their practical application. In this Section, we examine a particular situation in which another rule can apply -- one that places a weaker informational requirement on courts.

In many contractual negotiations, parties do not manage to agree on basic contractual terms (such as price) until time 2. But in some cases, the negotiating parties reach an understanding about the basic terms, yet do not incorporate this understanding immediately in a formal agreement. For example, parties negotiating the sale of a house may agree on the price and other significant elements of the transaction, but may delay the signing of a binding contract until they consult with their lawyers or bankers. If such a preliminary understanding exists, we can introduce a distinction between two stages of reliance -- reliance made prior to the understanding and reliance made after it. Thus, the sequence of events can now be depicted

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as the following:

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0          1a        1b        1c         2
|----------+---------+---------+----------|

meet   reliance  preliminary  reliance    contract
                understanding
```

This section focuses on the reliance decision made *after* the preliminary understanding, at time 1c. We analyze a rule that imposes liability for the reliance costs incurred at time 1c on the party who later on retracted from the preliminary agreement.[15]

To analyze this rule formally, suppose the parties reach a preliminary understanding over the contractual price p, but do not enter into a binding contract. After this agreement, both parties can make reliance investments, R_b and R_s. If, following these investments, a party is unwilling to enter a contract at the price p, this party will be held liable for the other party's reliance expenditures.

A. The Unilateral Reliance Case

Begin by looking at the final bargaining stage, after reliance expenditures have been incurred by B. At this stage, the parties may potentially agree on a new price, different from p, but the ability of S to demand higher prices is limited by his potential liability. Thus, the

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[15] This rule was applied in the famous case of *Hoffman v. Red Owl Stores*, 26 Wis. 2d 683, 133 N.W.2d 267 (1965) (prospective franchisee recovering reliance damages incurred after the contract price was termed and before the franchisor reneged). This rule should be distinguished from the rule based on "promissory estoppel", which holds the preliminary agreement to be a legally binding contract and awards the expectation measure of damages (which extend beyond the promisee's reliance costs, to cover also its expected profit from the transaction). See *Walters v. Marathon Oil Co.*, 642 F.2d 1098 (7th Cir. 1981); Katz (1996).

bargaining range at this stage lies between $C(R_b)$ at the bottom and $V(R_b) - R_b$ at the top. That is, the lowest price B may offer is $C(R_b)$; if she goes lower, S would prefer to reject the offer since he will not have to bear liability, and to any price of $C(R_b)$ or higher S will agree. Likewise, the highest price S may demand is $V(R_b) - R_b$; a higher demand would lead B to reject it and trigger liability. Assuming the parties set a price that splits the bargaining range according to their relative bargaining power, the price is expected to be

$$\theta C(R_b) + (1-\theta)[V(R_b) - R_b].$$ (22)

B's expected gain, when choosing her reliance investment, is therefore $\theta[G(R_b) - R_b]$, and her payoff maximizing reliance will be R_b^*, the socially optimal level.

PROPOSITION 11. If pre-contractual liability is restricted to a situation in which the seller retracts from a preliminary agreement, and covers the buyer's reliance costs incurred subsequent to the preliminary agreement, the buyer will choose the optimal level of reliance.

Remarks. (i) *Intuition.* The reason that this rule succeeds in inducing efficient reliance is that it equates the fraction of the surplus that B extracts with the fraction of the reliance cost that B actually bears. B cannot roll her entire cost of reliance over to S, since S is protected by the original price p, and, likewise, B does not enjoy the portion of the added surplus embodied in the reduced $C(R)$.[16]

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[16] The same rationale can be formulated using the interpretation that θ denotes the probability that B will be the one making a sole take-it-or-leave-it offer. If B is the one making the subsequent offer,she expects to extract the full benefit from her reliance investment but also to bear the full cost of this investment, as she cannot deduct this cost from the price she offers (being constrained to leave S a non-negative payoff, to secure S's agreement). And if B is not the one making the subsequent offer, she will receive a payoff which is independent of her reliance (zero). Thus, B will enjoy the

(ii) *The Original Price p.* The final price the parties agree upon depends, in part, on the original p, but need not be identical to it. It is enough to assume that the preliminary agreement named any p in the region that subsequently became the bargaining range, $[C(R_b), V(R_b) - R_b]$. For one, it can be assumed that at the preliminary agreement, the parties choose the same price that they rationally expect to arise in the subsequent agreement, $\theta C(R_b) + (1-\theta)[V(R_b) - R_b]$. If this is the case, the price does not change in the subsequent bargaining round, but the ability of B to affect it through her reliance investment generates the desirable incentive effects.[17]

(iii) *Limited Effect of the Rule.* The main drawback of this regime is that it governs only the time interval between the initial agreement and the negotiation breakdown. Reliance investments made *after* the initial agreement will be optimal under this regime, but any investment made prior to the initial agreement will be distorted, as there is no liability to monitor it. Inasmuch as parties have opportunities to rely during the time stretch that precedes the initial agreement (time 1a), the current rule will lead to under-investment at that stage.

(iv) *Information Needed.* This regime places a more modest informational requirement on courts relative to the intermediate liability regimes studied in Section V. Courts need only to observe the original agreed term (p), oftentimes documented by the parties, and any reliance expenditures actually invested after that initial agreement.

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fruit of her investment with the same likelihood that she will bear its cost, hence she will strike the optimal balance and invest optimally.

[17] Note that if B considers the preliminary price p to be final, she chooses R_b to maximize $V(R_b) - p - R_b$, and relies sub-optimally, as she does not take into account the effect of her reliance in reducing S's cost $C(R_b)$.

B. The Bilateral Reliance Case

Conducting the analysis in a similar fashion to the unilateral case, we can begin by looking at the final bargaining stage, after reliance expenditures have been incurred by both parties. At this stage, the parties may potentially agree on a new price, different from the original p. However, the ability of each party to propose a new price is curtailed by its potential liability. Thus, the bargaining range at this stage lies between $C(R_b,R_s) + R_s$ at the bottom and $V(R_b,R_s) - R_b$ at the top. That is, the lowest price B may offer is $C(R_b,R_s) + R_s$. If she goes lower, S would prefer to reject the offer since he will not have to bear liability and would get reimbursed for R_s. And the highest price S may demand is $V(R_b,R_s) - R_b$; a higher demand would lead B to reject it, and thus trigger liability. Assuming the parties set a price that splits the bargaining range according to their relative bargaining power, the expected price will be

$$\theta[C(R_b,R_s) + R_s] + (1-\theta)[V(R_b,R_s) - R_b]. \tag{23}$$

B's expected gain, when choosing her reliance investment, is $\theta[G(R_b,R_s) - R_b - R_s]$. S's expected payoff is $(1-\theta)[G(R_b,R_s) - R_s - R_b]$. The solutions to the two maximization problems yield the socially optimal levels of reliance, R_b^* and R_s^*.

PROPOSITION 12. If a party who retracts from a preliminary agreement has to compensate the other party for its reliance costs incurred after the preliminary agreement, the parties will make the optimal reliance investments.

Remark. As in the unilateral case, this rule succeeds in inducing efficient reliance only in the

time interval following the initial agreement, and does not help solve the under-investment problem at the earlier stage.

VII. DECISIONS WHETHER TO ENTER CONTRACTUAL NEGOTIATIONS

A. Incorporating the Decision Whether to Enter Negotiations

Thus far, it has been assumed that at time 1 the parties will always enter into contractual negotiations. In this Section, we examine the parties' decisions whether to enter negotiations and consider the effect of pre-contractual liability rules on these decisions.

A common view held by legal scholars suggests that imposing liability for pre-contractual reliance will discourage parties from entering negotiations.[18] The analysis in this Section will demonstrate that this view may be misleading. We will show that the absence of liability may not necessarily lead to more negotiations, and, more importantly, may not necessarily produce a greater joint surplus. The analysis we offer is exploratory in nature, and intended to highlight some directions in which the liability regimes affect the incentives to enter negotiations.

Several simplifying assumptions will be made in examining this issue. First, we will ignore any "transaction costs" parties may incur in entering negotiations. We will assume that these costs are zero. Second, we will assume that a party is not obligated to enter into contractual negotiations. A party will enter negotiations if and only if it will provide it with a positive expected gain. Additionally, given that we wish to focus on the decision whether or not to enter into negotiations, we will no longer assume that a transaction between the parties is

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[18] See. e.g., Farnsworth (1987, p. 221).

guaranteed to produce a surplus ($G > 0$). This assumption would have made the decision to enter negotiations a trivial one. Instead, we will assume that when two parties meet, a transaction between them may or may not be a surplus-producing one.

As before, we will assume that all parameters are common knowledge throughout the interaction, including at time 1, when the parties decide whether to enter into negotiation.

B. No Liability

PROPOSITION 13. Under a regime of no pre-contractual liability:

(a) The parties will enter into contractual negotiations in all cases in which, given the anticipated inefficient levels of reliance, there will be a positive surplus;

(b) The parties will not enter into contractual negotiations in all cases in which there is a positive potential surplus.

Proof. (a) Given the inefficient levels of reliance under the no-liability rule, there is a positive surplus if $G(R_s^N, R_b^N) - R_s^N - R_b^N > 0$. Since each party can secure itself a non-zero payoff (by setting $R = 0$ and rejecting the contract at t=2), each is guaranteed to get a non-negative portion of the entire surplus. Thus, if there is a positive surplus, each party will enter into negotiations.

(b) A positive potential surplus exists if $G(R_s^*, R_b^*) - R_s^* - R_b^* > 0$. In the absence of liability, the parties set reliance levels that deviate from the optimal levels, thus the surplus from the transaction is necessarily smaller. If the distorted reliance shrinks the surplus sufficiently to make it negative, from part (a) of the Proposition we know that the parties will not enter negotiations. ∎

Remark. The key feature of the no-liability regime is that a party cannot be forced to enter into a negative-payoff contract. Since each party is guaranteed to get a positive payoff, every time the parties enter negotiations there is a positive surplus from the contract. But the parties may fail to realize every potential surplus, because their "cautious" reliance may fail to produce the positive surplus that optimal reliance would have produced. In this case the parties will not enter negotiations.

C. Strict Liability

PROPOSITION 14. Under a regime of strict pre-contractual liability, parties may not enter into contractual negotiations even if the contract such negotiations would produce has a positive surplus.

Proof. Let $\Delta G^L = G(R_s^L, R_b^L) - R_s^L - R_b^L$ denote the contract's surplus. The parties expect to divide the surplus such that B will get $\Delta G_b^L = \theta G(R_s^L, R_b^L) - R_s^L$ and S will get $\Delta G_s^L = (1-\theta)G(R_s^L, R_b^L) - R_b^L$. We know that $\Delta G_b^L + \Delta G_s^L = \Delta G^L$. If $\Delta G_b^L < 0$, $\Delta G_s^L > 0$ and $\Delta G^L > 0$, the contract is a surplus creating one, yet B will not enter negotiations. Similarly, if $\Delta G_b^L > 0$, $\Delta G_s^L < 0$ and $\Delta G^L > 0$, the contract is a surplus creating one, yet S will not enter negotiations. ∎

Remarks. (i) Why Parties May Not Enter Negotiations. The rule of strict liability may fail to realize a potential positive surplus because the division of the surplus does not guarantee each party a positive payoff. Once entering negotiations, a party is liable for the reliance expenditures of the other party, a quantity which it does not control. If it expects the other party's reliance expenditures to be exceedingly high, it expects to enter a contract with a

negative payoff, in which case the party will not enter negotiations. This will occur even if the other party has a positive gain, such that the total net surplus from the transaction is positive.

(ii) *Comparison of the No-Liability and the Strict Liability Rules.* The last two Propositions may seem to suggest, at first glance, that the set of circumstances in which parties will enter into contractual negotiations is wider under the no-liability rule than under the strict liability rule. However, this impression is misguided. A careful comparison of the two rules will reveal that it is impossible to conclude that one of the rules will produce more entry into contractual negotiations.

To understand the ambiguity of the comparison, consider two cases. The first case involves a transaction that would produce surplus under both regimes. From Proposition 13 we know that parties will enter contractual negotiations under the no-liability rule, and from Proposition 14 we know that the same parties may not enter negotiations under the strict liability rule. Thus, in this case more entry occurs under no-liability. However, there is another case which involves a transaction that would produce surplus under the rule of strict liability but not under the rule of no-liability.[19] In such a case we know that there will certainly not be negotiations under no-liability (Proposition 13), but that there might be negotiations under strict liability (Proposition 14).

D. Intermediate Liability Regimes

1. *The Sharing of Costs Rule*

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[19] The comparison between the no-liability and the strict liability regimes, in terms of the surplus they generate, is ambiguous. Under strict liability there may be greater surplus if the welfare loss of the excessive reliance is smaller than the welfare loss of under-reliance which no-liability produces.

PROPOSITION 15. Under the sharing rule, parties will enter negotiations if and only if there is a potential surplus from the transaction.

Proof. Under the sharing rule, parties invest optimally in reliance. B's expected gain from entering negotiations is $\theta[G(R_b^*,R_s^*) - R_b^* - R_s^*]$ which will be positive if and only if the surplus $[G(R_b^*,R_s^*) - R_b^* - R_s^*]$ is positive. S's expected gain from entering negotiations is $(1-\theta)[G(R_b^*,R_s^*) - R_b^* - R_s^*]$, which will be positive if and only if the surplus is positive. ∎

Remark. This rule guarantees that parties will make reliance investments that maximize the net surplus from the contract. Since each party bears a fraction of the total reliance costs that is equal to the fraction of the surplus it extracts (θ for the buyer, $1-\theta$ for the seller), each is guaranteed a fraction of the total net surplus. Whenever the total maximal net surplus is positive, each party will get part of it; hence, each party will choose to enter negotiations.

2. *Liability Based on Fault*

PROPOSITION 16. Under the rule which assigns liability only on a party that offers unreasonable terms, the parties will enter negotiations if and only if there is a potential surplus from the transaction.

Proof. Under this rule, parties invest optimally in reliance (Proposition 8). B's expected gain from entering negotiations is $\theta[G(R_b^*,R_s^*) - R_b^* - R_s^*]$, which will be positive if and only if the surplus $[G(R_b^*,R_s^*) - R_b^* - R_s^*]$ is positive. S's expected gain from entering negotiations is $(1-\theta)[G(R_b^*,R_s^*) - R_b^* - R_s^*]$, which will be positive if and only if the surplus is positive. ∎

Remark. This rule guarantees that parties will make reliance investments that maximize the net

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surplus from the contract. Since each party bears a fraction of the total reliance costs that is equal to the fraction of the surplus it extracts (θ for the buyer, $1-\theta$ for the seller), each is guaranteed a fraction of the total net surplus. Whenever the total maximal net surplus is positive, each party will get part of it; hence, each party will choose to enter negotiations.

3. *Liability Limited to the Efficient Level of Reliance*

PROPOSITION 17. Under a rule that caps liability at the cost of the efficient level of reliance, parties may not enter into contractual negotiations even if the contract such negotiations would produce has a positive surplus.

Proof. From Proposition 10, we know that if they enter negotiations, the parties invest optimally in reliance. Thus, B expects a gain of $\theta G(R_b^*, R_s^*) - R_s^*$ and S expects a gain of $(1-\theta)G(R_b^*, R_s^*) - R_b^*$. Either of these payoffs may be negative even if the total surplus is positive, in which case the party with the negative payoff will not enter negotiations. ∎

Remark. This rule guarantees that parties will make reliance investments that maximize the net surplus from the contract. However, under this rule a party may bear a fraction of the total reliance costs that differs from the fraction of the surplus it extracts (the buyer extracts a θ-fraction of the surplus, but bears none of her own and all of the seller's reliance costs; the seller extracts a $1-\theta$-fraction of the surplus, but bears none of his own and all of the buyer's reliance costs). Thus, even if the total net surplus is positive, one of the parties may get a negative payoff, in which case it will not enter negotiations.

4. *Liability in Cases with a Preliminary Understanding over Terms*

PROPOSITION 18. If pre-contractual liability is restricted to situations in which a party retracts from a preliminary agreement over terms, the parties will proceed to negotiate after the preliminary agreement if and only if there is a potential surplus from the transaction.

Proof. Under this rule, parties invest optimally in reliance (Proposition 12). When deciding whether to pursue further negotiations and to make reliance investments, B's expected gain is $\theta[G(R_b^*,R_s^*) - R_b^* - R_s^*]$, which will be positive if and only if the surplus $[G(R_b^*,R_s^*) - R_b^* - R_s^*]$ is positive. S's expected gain at that stage is $(1-\theta)[G(R_b^*,R_s^*) - R_b^* - R_s^*]$, which will be positive if and only if the surplus is positive. ∎

Remark. (i) *Negotiations After the Preliminary Understanding.* Once the parties reach the initial understanding, all reliance expenditures invested prior to it are sunk. Thus, they will make additional reliance investments and will continue to negotiate if the surplus from the contract will be positive. From Proposition 12, we know that at that stage the parties will make optimal reliance decisions, so that the net surplus is maximized. Since each party bears a fraction of the total reliance costs that is equal to the fraction of the surplus it extracts (θ for the buyer, $1-\theta$ for the seller), each is guaranteed a fraction of the total net surplus. Whenever the total maximal net surplus is positive, each party will get part of it; hence, each party will choose to continue negotiations.

(ii) *Negotiations Prior to the Preliminary Understanding.* If the parties can make reliance investments at time 1a, prior to the preliminary understanding, their incentives to enter negotiations will depend on the liability regime governing that stage. If there is no liability at

the prior stage, then the parties may not enter into negotiations in all cases in which there is a positive potential surplus. At the prior stage, the effects identified in Proposition 13, which inhibit parties from entering into negotiations when there is no liability, operate.

VIII. CONCLUDING REMARKS

A. Pre-Contractual Liability to Protect the Bargaining Process

The analysis in this paper focussed on one justification for imposing pre-contractual liability -- to induce optimal reliance decisions. We did not explore other considerations which may justify liability. One alternative reason for imposing pre-contractual liability is to discourage types of undesirable behavior, such as misrepresentation or bad faith bargaining tactics, during the bargaining process.

For example, society may wish to deter parties from seeking negotiation partners if they do not seriously intend to reach agreement.[20] Similarly, parties who apply bargaining tactics that are extremely rigid and obstructionistic may be considered as lacking good faith and causing negotiation breakdown.[21] Or, parties may bargain in a way that manipulates the cost and information available to their counterparts, in a way that may reduce surplus.[22] Liability here is imposed regardless of the reliance investment, and is aimed at protecting the "integrity" of the bargaining process.

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[20] See *Markov v. ABC Transfer & Storage Co.*, 76 Wash. 2d 388, 457 P.2d 535 (1969) (lessor misrepresented intention to renew existing lease). See *Restatement (Second) of Contract* § 161 for the duty to disclose intent.

[21] See, e.g., *Majure v. NLRB*, 198 F.2d 735 (5th Cir. 1952).

[22] See Katz (1990) and Katz (1993).

B. Ex Ante Agreements Concerning Pre-Contractual Reliance

One extension that was not discussed in the model is the possibility of the parties entering an ex ante agreement concerning liability for their reliance investments. At time 0, when the parties meet, they may tailor their reliance investment at time 2, and may bargain and agree over the allocation of their costs.

In some cases we can observe this pattern. For example, when companies enter negotiations for one to acquire the other, there is often a preliminary agreement that the target corporation will reimburse some or all of the buyer's investigation costs, in case there is no agreement.

If the parties enter into such voluntary arrangements, they will likely design the optimal liability regime that will lead to efficient investment in reliance. Such agreements should therefore be enforced.

In light of the possibility of tailored reliance agreements, the analysis in the paper can be regarded as an exploration of the optimal *default* rule -- the optimal rule to govern pre-contractual relationships in which the parties did not affirmatively allocate liability for reliance costs when they entered negotiations.

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