An Experimental Study of Buyer-Seller Negotiation: Self-Interest Versus Other-Regarding Behavior

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ABSTRACT

This research explores the degree to which self-regarding and other-regarding behavior direct bargaining conduct in a controlled bargaining experiment. To achieve our goal we study simple bargaining between a buyer and a seller in a scenario that is rich enough to allow for possible resolutions based on five different models that can be ranked by the weight each model puts on unselfish behavior. Although none of the tested models performed uniformly best, behavioral regularities do emerge that suggest that bargainers are motivated first and foremost by individual incentives. Other-regarding behavior is only a constrain on the maximisation problem. A new parametric model intended to capture the motivational dynamics illustrated by the observed regularities is proposed and its efficacy is assessed.

INTRODUCTION

In a speech to a supermarket trade group Mr. Fairrington, president and chief operating officer of Hannaford Bros. Co., posed the following questions to supermarket CEO's: "... are we fairly compensated for carrying the manufacturer's broad line of products and for serving as a way to introduce new products?" The Grocery Manufacturers of America responded immediately to Fairrington's presentation. "Fairness" said C. Manly Molpus, president-CEO of the trade group, "is also an issue with manufacturers. Fairness to manufacturers means eliminating, not transferring, costs and implementing industry guidelines on issues such as invoice deductions and reclaim centers" (Advertising Age May 11, 1992, p. 6).

Clearly, the issue of fairness is explicitly discussed by marketing practitioners but it is not always clear, as the above example demonstrates, whether the fairness argument is used to enhance one's own strategic position or to represent a genuine belief in "abstract" standards of fairness.

At the same time, academic research has also focused on the questions of fairness (Babcock, Loewenstein, Issacharoff and Camerer 1995; Thompson and Loewenstein 1992). Growing evidence from the fields of marketing, economics, and psychology indicates that individual behavior in an economic exchange context can not be accurately described by the rational, self-interested assumptions of traditional economics. In many circumstances, people behave as if they care not only about their own well-being, but also about the well-being of others. In a bargaining context, for example, Corfman and Lehmann (1993) have argued that negotiators' offers are often more generous than the amount actually necessary to induce the other party to accept. Dwyer and Walker (1981) have suggested that "... there is an equity norm against the full exploitation of a fortuitous situation that provides a clear power advantage" (p. 112). Similarly Kahneman, Knetsch and Thaler (1986) have concluded that consumers may incorporate distributional concerns into their utility functions, and models invoking the notions of equity or equality explain consumers' behavior better than models that are based on the assumption of pure self interest. Furthermore, it has been argued that distributional concerns influence the behavior of firms and are not just limited to the laboratory (e.g., Kahneman et al. 1986).

On the other hand, others have found that even when the economic models (based on the assumption of self-interest) yield very unequal predicted payoffs, strategic considerations are not displaced by considerations of equity (Prasnikar and Roth 1992; Weg and Zwick 1994). Further, some seemingly "other-regarding" behavior can be explained by reference to inherently self-interested motives such as punishment avoidance (Bolton and Zwick 1995; Zwick and Chen 1999).

Given the above conflicting findings and the relatively few studies published in the marketing literature dealing with bargaining and fairness issues, the present study explores the degree to which self-interest and other-regarding motives direct bargaining behavior in a well controlled bargaining experiment. To achieve our goal, we study simple bargaining between a buyer and a seller in a scenario rich enough to allow for possible resolutions based on five different models that can be ranked by the weight each model puts on unselfish behavior. While previous studies directly confronted self-interest versus "other-regarding" behavior, we allow for varying degrees of mixed motives by considering a continuum along which the resolutions can be ranked.

Our study reveals that bargainers are motivated first and foremost by individual incentives. Fairness issues are only constraints upon the maximisation problem. Further, the constraints can give empirical support to the popular belief that in negotiation "... weakness can actually be strength" (Cohen 1980, p. 40) and, in accordance with Raiffa's assertion, that sometimes increasing the power of one side (everything else being equal) might empirically result in poorer outcomes for that side and usually for the other side as well (Raiffa 1982).

Salient Features and Previous Marketing Studies

The salient features of the present experiment captures some of the real-world characteristics that are strategically important in buyer-seller negotiation. We now turn to a discussion of these features and their inclusion in previous marketing studies.

Bargaining Costs

Bargaining consumes time and, as a result, can entail real monetary as well as psychological losses. For example, during protracted negotiations over the price of a car, buyer and seller alike lose money while determining the price. The seller loses the interest she could be earning if she had the money from the sale and pay inventory holding costs; the buyer must pay taxi fares while he does not own the car. This cost factor has been virtually ignored in previous theoretical and experimental bargaining studies in the marketing field. For example, Eliashberg, Lilien and Kim (1995) have noted that although bargaining cost is considered important in real-life negotiation, only 16 percent of the research articles published in marketing journals considered a cost variable. In our study bargaining costs are implemented as constant costs of delay. Note that the costs we investigate are the actual costs of making offers and counter-offers. These are not time related costs per se, but are, rather, costs that accumulate during each round of the negotiation.

The normative (self-interest) solutions to simple fixed-cost bargaining games are extreme in nature. The player with the smaller cost is expected to benefit most from the bargaining almost in an "all or none" fashion, setting the stage for a powerful conflict between self interest and otherregarding motives.

Outside Options

In many economic environments, the outcome of one bargaining problem is contingent on the forecast of outcomes of other bargaining problems. These outside options have been recognised as an important source of power in virtually all studies dealing with marketing negotiation (e.g., Anderson and Narus 1984). Yet, in experimental studies within a marketing context, Eliashberg, LaTour, Rangaswamy, and Stern (1986) could not find significant differences between equal and unequal power conditions derived from outside options.

Neslin and Greenhalgh's (1983, 1986) subjects were informed that "in this bilateral oligopoly situation, both parties had alternatives" (Neslin and Greenhalgh 1983, p. 372). But these alternatives were not explicitly specified, and the design of their simulation case was written with the intention of balancing the situational advantages for buyers and sellers. The authors recommended that "further research could manipulate the power factor to investigate the impact of power on negotiated settlements" (Neslin and Greenhalgh 1983, p. 376).

Finally, Dwyer and Walker (1981) have shown that the availability of outside options to one of the players greatly improves that player's position and translates into higher gain from trade. However, the conditions that were compared in that study, the symmetrical power condition (bilateral monopoly—no outside options) and the asymmetrical power condition (triadic structure—one seller and two buyers), were different from each other, not only in situational power (i.e., the availability of outside options), but also in the institutional structure imposed on the negotiation. Hence, the seller's advantage in the asymmetric power condition cannot be uniquely attributed to the availability of the outside option. Here we study the effect of outside options on the negotiated outcomes, while we keep the bargainers' power derived from the institutional structure almost symmetric (Weg, Zwick and Rapoport 1996).

The Simulated Bargaining Procedure

Suppose that a buyer and a seller negotiate the price of a good. For simplicity and with no loss of generality, assume that the good by itself has no value to the seller other than its selling price. The buyer values the good at v. The buyer can buy an identical good from a store for the posted (non negotiable) price of S_s (the store selling price), and the seller can sell the good to the store for the posted (non negotiable) price of S_b (the store buying price), where $S_s > S_b$. The outcomes available through dealing with the store are referred to as the players' "outside options". The buyer's outside option is $o_b = v - S_s$ and the seller's is $o_s = S_b$ (because of the assumption that the good has no intrinsic value).

The motivation to engage in direct negotiation rather than to consume the outside option stems from the buyer's and seller's expectation of gaining more than their respective outside options by sharing the amount that would otherwise have been allocated to the channel of distribution. The division of $S_s - S_b$ is contingent on the trading rule and the costs of negotiation.

The trading rule

Buyer and seller alternate in making price offers. The bargaining time is divided into discrete periods. At any period k one bargainer proposes a price. The responding bargainer can do one of three things:

(1) Accept the offer. Here, the seller sells the good to the buyer at the agreed price.
(2) Reject the offer. This choice signals an intent to continue the bargaining; it is then the rejecting bargainer's turn to make a counter proposal in the *next period.*
(3) Quit, thereby terminating the bargaining. Here, the buyer buys the good from the store at the store selling price, and the seller sells the good to the store at the store buying price.

The bargaining commences with the buyer's proposal and terminates only when agreement is reached or one of the bargainers chooses to quit.

Bargaining costs. The bargaining itself incurs some costs. Each time a bargainer rejects an offer, the buyer pays c_b and the seller pays c_s. These fees accumulate until an agreement is reached or one of the bargainers chooses to quit.

Payoffs. If negotiation ends with an agreement in the k^{th} period on a price p_k the payoff is adjusted by the total accumulated costs to result in $(v-p_k)-(k-1)c_b$ for the buyer, and $pk-(k-l)c_s$ for the seller. If one of the players quits in the k^{th} period, the payoffs are $o_b-(k-1)c_b$ for the buyer and $o_s-(k-1)c_s$ for the seller.

Models

We consider five possible resolutions of the trading scenario described above. These models were chosen based on the relatively strong support they received in previous studies and their location along the selfinterest–other-regarding continuum. Given that the trading rule treats bargainers in an almost symmetric way, there are two major sources of strategic power: low bargaining costs and/or an advantageous outside option. Subjects may exploit both sources or may ignore one or both in favor of agreement based on nonstrategically determined motives. The five models can be ranked by the degree to which they take advantage of all power sources in a self interested way or by the weight they put on unselfish behavior.

Equal split (ES): Here bargainers do not exploit any bargaining power. The price is set to $v/2$ in the first period. The equal split rule may require one of the bargainers to sacrifice some of his guaranteed payoffs.

Equal net profit (ENP): Similar to the ES solution, players agree to a 50:50 split of the available surplus. However, Pareto efficiency is not assumed, hence the price is conditioned on the period of agreement. At that period, the price reflects net payoff equality, accounting for the difference in bargaining costs. The player with the higher bargaining cost is compensated by having the price set in his/her favor. To derive predictions from the ENP model, we solve the equation $(v-p_k)-(k-l)c_b = p_k-(k-1)c_s$ for p_k. ENP is a non-strategic version of cost considerations because the consequence of a rejection is shared equally by the bargainers.

Deal-me-out (DMO): Here bargaining costs are ignored. The price is set to $v/2$ unless one of the bargainers can get a better price at the store. If that is the case, the price is set to that better price.

Split-the-difference (STD): The STD rule goes further in the same direction. In employing STD, both players consider their endowments to be given. STD is equal sharing on a sub-interval of the interval $[0, v]$, given by the negotiation interval $[S_b, S_s]$. *Both* bargainers benefit equally from the *bargaining.* Note that this outcome is the Nash bargaining solution with the status quo located at (o_b, o_s) The predicted price is $(S_s + S_b)/2$.

Subgame perfect equilibrium (SPE): The only assumption about players' preferences is that they prefer larger net shares to smaller. The SPE leads to the following two theorems:

Theorem A. Let $G=(v, c_b, c_s, S_s, S_b)$ be an infinite horizon bargaining game as defined above. There is a unique pair of strategies that end the game in the first period with a price:

$$p = \begin{cases} S_b & if \quad c_b < c_s \\ S_b - c_s & if \quad c_b > c_s \end{cases}$$

The proof of this theorem is given in Zwick and Weg (1996). This formula is nothing but what one would expect given the trading rule and the bargaining per period fixed costs.

SPE received strong support in the Rapoport et al. (1990) and Weg and Zwick (1991) studies of two-person infinite-horizon bargaining games in fixed cost environments.

METHOD

Subjects: Ninety-six subjects, male and female undergraduate students in groups of six, participated in a role playing session that lasted about 90 minutes. Subjects were recruited through a classified advertisement placed in the campus newspaper promising monetary reward contingent on performance in a bargaining study.

Experimental Design: Each of the bargaining games consisted of bargaining on a surplus of \$20 (i.e., v=20) with outside options and constant costs of delay, using the trading rule described above.

We used a 2(Bargaining Costs) x 4(Outside Options) x 2(Roles) x 3(Iterations) design. The first two factors were between subjects, and the last two within subjects. The first factor is bargaining costs. In one level, the buyer paid \$2.00 and the seller paid \$0.10 for every delay. The reverse held for the second level of bargaining costs. The second factor is the outside options, (o_b, o_s), which assumed the values of (\$0.00, \$6.00), (\$0.00, \$14.00), (\$6.00, \$0.00), and (\$14.00, \$0.00). These reflect the gross payoffs (before accounting for bargaining costs) that buyers and sellers would obtain should they opt to deal with the store. The experiment is described to the subjects in the natural setting. Outside options are thus implied by the store's selling and buying prices—S_s and S_b. The third factor is the role that a subject assumed in a game (a buyer or a seller), and the last factor is iteration, namely whether the buyer held this role for the first, second, or third time. Hence, each subject played the same type of game six times; three times as a buyer and three as a seller.

Procedure: A role playing session with students in the roles of buyers and sellers was used to test the predictive validity of the five proposed models. We have chosen the familiar context of buying and selling used textbooks.

Subjects interacted in a computer laboratory that contained eight terminals arranged in cubicles, making it impossible for subjects to know against whom they were playing or to see each other's screens. In each session, the group of six subjects was divided into two sub-groups of three. Each subject was matched twice with a subject from the other group, once as a buyer and once as a seller. The role that members of one of the subgroups assumed was determined randomly with the constraint that each role will be assumed three times (the other subgroup assumed the complementary role). Proposals, acceptances, rejections, and quits were transmitted through terminals. No other communications were allowed.

Subjects were informed that at the end of the session they would be paid in cash an amount equivalent to their average net payoff in two randomly selected games, one in which they were buyers and one in which they were sellers. Average payoffs over all design cells was \$8.73.

In practice, both players would have been forced to take their outside options had the negotiations reached the fourteenth period, a situation which never occured.

RESULTS

In this section we explore how well the proposed models fit the accepted offers, and in the following section, we propose a regression model that supports our interpretation of the results.

Agreements. Recall that each subject played the role of buyer and seller three times. Let E1, E2, and E3 indicate plays of a game in which an individual subject assumes the role of a buyer for the first, second, or third time, respectively. Table 1 presents the mean final *accepted* offers for the design cells. We use this to assess the models.

To make sense of these numbers, we first note that, except for cell $(14,0;c_b<c_s)$ where the buyer is cost-based strong and the seller has no (valuable) outside option (the store sells the book for \$14 but does not buy used books), mean cells do not change with experience by more than about 5 percent of the \$20 interval. Hence, we are led to assume that in this study, mean final offers do not vary with exposure to bargaining. Thus we consider the 'Mean' (over E1 to E3) column of Table 1.

Model Testing: From inspection of Table 1, it becomes immediately clear that no one model proved to be uniformly best. Table 2 presents mean final net profits by bookstore prices and costs. Clearly, the prediction of a regular equal net profit is false. Net profits of buyers and sellers varied systematically, delineating the manipulation of strategic advantage by the players, derived from both outside options and costs. Players accepted prices that entailed extreme unequal net profit allocation such as \$16.99 to the seller and \$2.31 to the buyer when the seller's strength was derived from both low bargaining costs and an advantageous outside option (E3). Thus, the ENP model, whose predictions depend upon termination period, is too preposterous to be considered any further. But one can determine the viability of the various other models by noting whether some of their more qualitative properties, if not their exact predictions, hold true.

Thus, at the one extreme ES, STD, and DMO predictions are *independent* of the bargaining costs and at the other, the SPE's are not only *dependent* on the cost structure but this dependence has a certain quality: *it is independent of the outside options for the cost-based strong bargainer. Strong buyers ezpect the price to be S_b and strong sellers ezpect the price to be S_s.*

Costs. In order to assess cost effects, we compare Means of rows 1 to 4, 2 to 3, 5 to 8, and 6 to 7 in Table 2. Note that with regard to the first two comparisons, the negotiation interval range is \$6 and the minimal difference is \$1.00 (16.67%) and for the last two comparisons the minimum difference is \$2.44 (17.43%) with a range of \$14. Since each of these comparisons concerns the *same* store buying and selling prices but *opposite* cost structures, we see that SPE is favored and the other models are not.

Outside Options. A weak form of SPE implies that strong cost-based bargainers obtain the same price regardless of their positive outside options when their opponents may opt out for nothing (see Theorems A and B). This prediction is clearly violated. In fact, the average price increases from \$14.47 to \$16.83 for strong sellers (row 1 vs. row 5) and decreases from \$7.39 to \$3.61 for strong buyers (row 2 vs. row 6). In both cases, the effect of the outside option on the final accepted prices is significant ($p<0.001$).

Observed Regularities. The above analysis indicates that no single model considered here accounts for the observed prices in all of the experimental conditions. In particular, the ES, STD, DMO, and ENP models fail to account for the strategic use of the cost variable, and SPE fails to account for the strategic use of the outside option, an irrelevant feature in certain cases. Nonetheless, some regularities do emerge. In particular, except in one condition (20, 6; $c_b>c_s$) prices are located between STD and DMO. To illustrate these regularities, let us point out some order relationship among the proportions of the negotiation interval allocated to the cost-based strong bargainer presented in Table 3.

Compare the share in row 1 to that in row 5 where a cost-based strong seller having positive outside option is facing a cost-based weak buyer having no (valuable) outside option. The value of the seller's outside option is larger in row 1 (\$14) than in row 5 (\$6) and his/her share of the negotiation interval is smaller in row 1 (50%)

TABLE 1
Mean Final Accepted Prices and Predicted Prices by the Various Models

S_s, S_b	Costs	E1	E2	E3	Mean	STD	DMO	SPE
20, 14	$c_b>c_s$	16.55	16.93	17.02	16.83	17.00	14.00	19.90
6, 0	$c_b<c_s$	4.20	3.49	3.17	3.61	3.00	6.00	0.00
6, 0	$c_b>c_s$	5.61	5.87	5.49	5.65	3.00	6.00	5.90
20, 14	$c_b<c_s$	15.96	15.53	15.98	15.83	17.00	14.00	14.00
20, 6	$c_b>c_s$	14.00	14.47	14.94	14.47	13.00	10.00	19.90
14, 0	$c_b<c_s$	8.96	6.25	6.82	7.39	7.00	10.00	0.00
14, 0	$c_b>c_s$	9.89	9.72	9.90	9.83	7.00	10.00	13.90
20, 6	$c_b<c_s$	10.59	10.86	10.44	10.63	13.00	10.00	6.00

TABLE 2
Mean Final Net Profits Resulting from Agreements

		Seller			Buyer		
S_s, S_b	Costs	E1	E2	E3	E1	E2	E3
20, 14	$c_b>c_s$	16.47	16.85	16.99	1.85	1.43	2.31
6, 0	$c_b<c_s$	2.20	2.89	2.17	15.70	16.48	16.78
6, 0	$c_b>c_s$	5.51	5.83	5.42	12.39	13.24	12.91
20, 14	$c_b<c_s$	15.16	15.33	15.43	4.00	4.46	4.00
20, 6	$c_b>c_s$	13.93	14.41	14.90	4.55	4.12	4.33
14, 0	$c_b<c_s$	6.12	4.44	5.36	10.90	13.65	13.11
14, 0	$c_b>c_s$	9.87	9.67	9.84	9.75	9.28	8.70
20, 6	$c_b<c_s$	8.41	8.50	8.11	9.30	9.02	9.44

TABLE 3
Mean and Predicted Relative Share of The Cost-Based Strong Bargainer (E3)

Row	S_s, S_b	Costs	Mean	Predicted
1	20, 14	$c_b>c_s$	0.50	0.54
2	6, 0	$c_b<c_s$	0.47	0.52
3	6, 0	$c_b>c_s$	0.86	0.80
4	20, 14	$c_b<c_s$	0.67	0.79
5	20, 6	$c_b>c_s$	0.64	0.52
6	14, 0	$c_b<c_s$	0.58	0.50
7	14, 0	$c_b>c_s$	0.71	0.65
8	20, 6	$c_b<c_s$	0.68	0.63

than in row 5 (64%). We conjecture that the down pressure on the seller's proportion of the negotiation interval in row 1 (as compared to row 5) is due to both his/her own high outside option and to the buyer's low outside option. This pressure is eased on one dimension (the seller's own outside option) when moving from row 1 to 5. The same pattern emerges when comparing rows 2 and 6, which are similar to rows 1 and 5 except that the buyer is the advantageous bargainer. Now, consider a comparison between rows 1 and 4. In row 4, the cost-based strong bargainer obtains 67 percent of the negotiation interval whereas the same player obtains only 50 percent of the interval in row 1. This down pressure on the cost-based strong bargainer's share when moving from row 4 to 1 can be explained by the simultaneous effect of his/her own outside option going up (from null to \$14) and the down shift in the cost-based weak bargainer's outside option (from \$14 to null). Similar logic operates regarding the comparisons between rows 3 vs. 7, 5 vs. 8, 2 vs. 3, and 6 vs. 7.

Let us summarize by saying that while bargaining that takes place in a fixed-cost environment confers total power to the cost-based strong player (Theorem A), and while this power distribution is recognized and acted upon by the bargainers as has been shown by Rapoport et al. (1990) and Weg and Zwick (1991), the legitimate use of this power is reinforced (or mitigated) by the outside options of the buyer and seller. This constraint is *not* captured by the game-theoretic analysis.

Subgame perfect prices in fixed-cost bargaining lie in the extreme of the negotiation interval—$[S_b, S_s]$—depending on the relative cost-based strength of buyers and sellers. Now we see that actual prices are generally not extreme. As we argued above, this moderation is attributed to the availability of the opting out option endowed to any bargainer facing an unpleasant price offer. In our case, a cost-based weak player can protect him/herself by going with the bookstore price. Therefore, the costbased strong player mitigates his/her demands, reflecting the quit threat available to the other bargainers.

A Regression Model. The data suggests that an *acceptable* price is a variable within the negotiation interval, varying systematically with the values of the outside options. In an essentially random manner, the two bargainers are assigned roles in a game that provides certain but different windfalls. Subjects do pay attention to the manner in which some of the total surplus is allocated through the roles that the bargainers play—either buyer or seller. The part that is not allocated—S_s–S_b—is bargained over. A player with a relatively large outside option when strong (based upon bargaining costs) does not 'deserve' a large part of the negotiation interval. A 'too large' demand will be rebuffed. In contrast, a strong cost-based player facing a strong outside-option-based player may feel justified in claiming a relatively larger part of the negotiation interval. More generally, the data suggests that the *proportion* of the negotiation interval given to the cost-based strong player is monotonically decreasing with his/her own outside option and monotonically increasing with his/her co-bargainer's outside option. This principle is the effect of perceived fairness.

Based on these findings, we now pursue a parametric model intended to capture the motivational dynamics described above. It is by no means the only possible model. Its purpose is merely to capture our considerations in a few parameters and assess their efficacy.

Let x be the mean proportion of the negotiation interval allocated to the cost-based strong bargainer. A simple (logit-like) expression illustrating our considerations is:

$$x = \frac{\exp(\alpha w/v)}{\exp(\alpha w/v) + \exp(\beta s/v + \gamma 1_E)}$$

where w is the outside option of the cost-based weak bargainer, s is the outside option of the cost-based strong player, v is the valuation of the buyer, and I_E is the characteristic function of E (i.e., the dummyvariable), where E *is* the set of games in which the buyer is the cost-based strong bargainer. The parameters α, β, γ are unknown and need to be estimated. Positive α and β reflects the monotonicity hypothesis. Differences in their sizes indicate differences in the weights that bargainers give to the outside options. The parameter γ is there to capture the distinction between accepted prices, depending on whether or not the buyer is a cost-based strong player. The exponential device is used to scale the negotiation interval in a nonlinear fashion to prevent ceiling effects and to prevent predictions outside the negotiation interval. As such, it is not unique.

The estimated α, β, γ (based on E3) are 2.00, -0.24, and 0.09. The last two are asymptotically insignificant at 5 percent. There is no point in comparing the sizes of these coefficients, particularly not the first two to the third, because only one turns out to be significant. We have already noted the seller's advantage. Here we see a trace of it, in the positive but insignificant γ.

Based on the estimated values of the parameters, we conclude that the important factor in determining the partition of the negotiation interval is the outside option available to the cost-based *weak* bargainer (buyer or seller). The smaller this value, the less inclined the strong bargainer is to exercise his/her full waiting power.

DISCUSSION

Final accepted prices indicate that subjects took into account a number of relevant signals in the decision environment and that these signals together influenced negotiated prices. However, no single model (considered *a-priori)* accounts for the observed prices in all experimental conditions.

We interpret our findings of less extreme prices as predicted by the pure self-interest model (SPE) to reflect bargainers' sensitivity to the manner in which the total surplus is allocated via the outside options. Note, however, that the low-cost bargainer almost always (except in cell (6, 0; c_b<c_s)) receives more than 50 percent of the available interval in accordance with his/her derived strategic power, indicating that considerations of equity do not completely displace strategic considerations. This point is related to the argument put forth by Kahneman, Knetsch, and Thaler (1986) regarding the role of fairness in the marketplace. It is not that economic agents are oblivious to strategic considerations, but that their actual actions are moderated by fairness constraints.

Clearly, bargaining costs, largely ignored in previous experimental studies of marketing negotiation, matter and ignoring them impedes prospects for reaching valid predictions. Although our results remove SPE as a viable predictor of bargaining behavior in the tested context, the observed regularities suggest that further refinement of self-interest models by incorporating fairness/punishment considerations are more likely to bear fruit than the further pursuit of cooperative models that ignore important sources of bargaining power (see, for example, Bolton and Zwick 1995; Rabin 1993).

We have shown the importance of advantageous outside options. It seems that the reason previous experimental studies reported in the marketing literature have failed to demonstrate this source of power is their weak experimental manipulations. When outside options are explicitly available, they establish a source of much strategic value.

On the more practical side, our study supports the conclusion that when bargaining costs and outside options are common knowledge, price posting (take-it-or-leave-it offers) and less bargaining can be expected when the cost-based weak bargainer has

an attractive outside option. This is a direct conclusion from the significant (large) weight given to the outside option of the weak bargainer. Further, a cost-based weak bargainer who has a better outside option than his/her opponent (but yet expects to achieve a better outcome from the bargaining) should frame the negotiation in such a way that gives as little weight as possible to his/her own outside value. The other bargainer, of course, should try the opposite. Such de-emphasis of one's own strength can give empirical content to the popular belief that, in negotiation, weakness can sometimes be a strength.

We have found that prices are constrained by other-regarding behavior even under the anonymous nature of the experimental setting. It is expected that the balance between self-interest and other-regarding motives will vary as a function of two elements. The first is the negotiation context. Some who are comfortable with unmitigated strategic play in a contest context may not be comfortable with it in a context that emphasizes, say, group welfare or religious values. The second element is understanding the mechanism by which the strategically advantageous role is obtained. Some may feel that strategic advantage can be fairly used only if it was in some sense fairly gained (Bolton, Katok and Zwick 1998). These issues are not identified in our study; they will no doubt require much further empirical and theoretical study. We believe that bargainers exploit or refrain from exploiting strategic advantages in accordance with individual standards of conduct that stipulate when and to what extent strategic advantage can be fairly used. These individual standards of conduct, which are socially or culturally based, will probably not disappear with laboratory experience (Bolton, Abbink, Sadrieh and Tang 1996).

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