

Developments in Business Simulation & Experiential Exercises, Volume 8, 1981

BARGAINING BEHAVIOR IN PERSONAL SELLING AND BUYING EXCHANGES

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ABSTRACT

Five defining characteristics of negotiations are used to emphasize the need to develop an adequate social context into parasimulations of marketing exchanges. Some extant marketing games of exchange are criticized as being too far removed from the natural Situation they attempt to simulate. A Car Dealers Game is presented which is believed to meet the essential characteristics of an actual marketing exchange. Empirical test results using the Car Dealers Game are reported which support most of 12 hypotheses derived from a simple framework of buyer-seller exchanges.

The use of full cycle behavioral research (from lab to field to lab to field) on marketing exchanges is advocated including observation and manipulation of antecedent, strategic decision-making, and process variables in both laboratory and natural locations.

INTRODUCTION

Morley [13] asks us to consider the following passage from P. G. Wodehouse's Aunts Aren't Gentlemen:

"How much do I want, sir?"
"Yes. Give it a name. We won't haggle."
He pursed his lips.
"I'm afraid," he said, having unpursed them, "I couldn't do it as cheap as I'd like, sir...I'd have to make it twenty pounds."
I was relieved. I had been expecting something higher. He, too, seemed to feel that he had erred on the side of moderation, for he immediately added:
"Or, rather thirty."
"Thirty."
"Thirty, sir."
"Let's haggle," I said.
But when I suggested twenty-five, a nicer looking sort of number than thirty, he shook his grey head regretfully, so we went on haggling, and he haggled better than me, so that eventually we settled on thirty-five. It wasn't one of my best haggling days [22, Pp. 100-101].

Many of the defining characteristics of negotiations are illustrated in this exchange. (1) Negotiation is a process of joint decision-making. (2) Negotiators have different preferences concerning the set of actions which may be taken. (3) Negotiations are mixed-motive situations, i.e., each party has a motive for cooperation in order to reach a mutually agreeable solution, and simultaneously, a motive for competition in order to gain at the other's expense. (4) Negotiation allows the possibility of strategic decision-making of one Sort or another where each party's actions may be guided by expectations of what the other will accept. (5) Negotiation involves talking about a relationship before doing anything about it [13].

While several definitions of negotiation and bargaining have been developed [17], Morley and Stephenson [14] provide definitions for both which are useful particularly for personal selling and buying exchanges: "Negotiation is any form of verbal communication, direct or indirect, whereby

parties to a conflict of interest discuss, without resort to arbitration or other judicial processes, the form of the joint action they might take to manage a dispute between them. Bargaining is one form of negotiation, namely negotiation for agreement."

Given these characteristics and definitions, extremely few laboratory or field Studies are available in social psychology or marketing which may be classified as negotiation or bargaining research. On this basis Nemeth [15] has criticized the substantial body of empirical research and propositions generated from the Prisoner's Dilemma analogue. These games lack an adequate social context; communication is restricted to an extent that the partner may be forgotten; negotiation lacks multidimensionality; there is a lack of clarity as to which are the exchangeable resources. "These may be the reasons why behavior in experimental games has proven to be extremely instruction dependent and has included less reciprocity in interaction than behavior in naturalistic setting" [18]. Stern, Sternthal, and Craig [21] provide several brief criticisms of their own "parasimulation" of distribution channel bargaining, including: "relaxation on the ban on oral communication within each firm would increase mundane realism" (p. 177).

Stern et al. [21] define a parasimulation as more complete than a game but less complete than a full-blown simulation. "On the other hand, a parasimulation affords less participant interaction than a game but greater control than is usually found in simulation exercises. Finally, in all three types of paradigms, specification of relationships is generally quite high" (p. 170). Using 282 students as subjects, two firms of three Subjects each bargained for a limited time period over the price and quantity at which the one firm, Surgical Manufacturing, would sell microscalpels to the other, Wholesale Hospital Supply. The researchers found that an exchange-of--persons condition brought about more effective long-term problem-solving behavior among the conflicting parties than an outside threat condition.

The terms parasimulation, laboratory paradigm and game are used interchangeably in this paper. The focus is directed toward briefly describing the problems in developing parasimulations of real-life bargaining tasks involving economic exchanges. A simple laboratory analogue of an actual marketing exchange is presented. Empirical results are described of a test of several propositions on the strategies developed by subjects participating in the game.

PROBLEMS WITH LABORATORY GAMES

Parasimulations are designed to include some features of real-life situations and exclude others. Games are experimenters' attempts to build simple laboratory situations which preserve the essential aspects of some real-life cases. Thus, "the fact that an experimental situation differs in obvious ways from the real world does not ipso facto make it irrelevant as a possible source of valid generalizations" [9, p. 598]. The purpose of the game is to provide the experimenter with easy access to critical features of a real-life situa-

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tion for developing and testing hypotheses through observing and manipulating some of the features.

The external validity of research hypotheses supported by games can be established only by direct tests in real-life situations. The Specifics to this argument have been presented in detail by Cialdini [5] and Morley [13]. Two related points should be noted here. (1) Given that problems of generalizing the results of laboratory research are specific and cannot be settled once and for all, it is surprising that very few experimental studies of negotiations have derived inspiration from data collected in the field. By and large, most laboratory studies have been suggested by other laboratory research. (2) One way of increasing the relevance of laboratory research is to integrate it into a program of study which also involves the analysis of real cases [14].

Most games and studies of exchange developed in marketing can be criticized tellingly similar to the criticisms of games of exchange developed by social psychologists. The marketing operationalizations concerning exchange relationships developed by Busch and Wilson [2], Stern, Sternthal, and Craig [21], and Levitt [12] lack an adequate social context. The use of videotaped sales messages [cf. 2, 12] as a surrogate of selling behavior is too far removed from an essential feature of the natural situation. Communication is restricted in the Stern et al. [21] game to an extent that the other firm may be forgotten. The need and failure to include critical features of real-life marketing exchanges in marketing simulations has been expressed before [cf. 3].

A related but less severe criticism is that no marketing or social psychology games exist apparently which allow subjects to change the nature of the agenda items on the table, such integrative bargaining behavior has not been reported in laboratory research.

Morley [13] and Schuler [18] have stressed the need to incorporate the essential features of natural situations in mixed-motive games of exchange. The experimenter must deal with three sorts of problems: first, he must define the behavior he is trying to simulate; secondly, he must identify certain key components of that behavior; and third, he must translate those components into components of a laboratory task.

The aim in developing the marketing game reported in the following Section was to provide easy access to a simple marketing exchange known to occur in real-life wherein both the seller and the buyer have near equal power in the negotiation process. By simple is meant that a natural setting was selected where (1) neither previous nor future interactions would likely occur between the parties, (2) one person is the seller and one person is the buyer, and (3) the exchange would be expected to be completed by both parties in one face-to-face meeting. By equal power is meant that both the buyer and seller would expect each other to attempt to influence the terms of the agreement to be negotiated because both have substantial control over such terms. Such an exchange has been called a functional equivalence system.

“Functional equivalence means that in an issue-specific sense neither party is so weak that one can overtly influence by force, for example, or use manipulative punishments without the other retaliating, thus pro- noting a very costly interchange that does not accomplish exchange and hurts both parties. The asking price is viewed as an initial starting point, not as any fixed entity that a buyer may take or leave” [1].

The game was designed to incorporate all the major defining characteristics of negotiations which were mentioned briefly in the introduction.

THE CAR DEALERS GAME

The Car Dealers Game Is a mixed-motive parasimulation requiring some degree of cooperation and conflict between two car dealers negotiating an agreement to sell and so buy a Specific car. The subject assigned the role of seller is given the information shown in Exhibit 1 and asked to make several decisions shown in the exhibit. The seller is asked for the reason for each decision. The subject assigned the role of buyer is given the information shown in Exhibit 2 and similar instructions as given to the seller. Each is informed that he/she will meet with the other party after completing the worksheet provided.

EXHIBIT 1 THE CAR DEALERS GAME

Confidential Information to the Seller

The following information is confidential. No one else has seen this information. However, you may give some or all of the information to other persons during the game.

You are a new and used car dealer in Columbia, South Carolina. Presently you have an inventory of 250 cars. Half of the cars are late models or new. Your oldest model is a 1952 Packard four-door sedan.

You are known locally for offering used cars with a one-week guarantee - “If you can’t start it, return it for a full refund in the first week after purchase.”

You have decided to junk your older inventory of used cars. All pre-1960 cars will be sold next week to the local iron works at \$300 per car.

Today you have received a phone call from another dealer in Washington, DC. This dealer is looking for a 1952 four-door Packard sedan in working order for a customer. The dealer heard that you had such a car. The dealer asked if he could meet with you tomorrow to purchase the car. He said that he will stop on his way to Florida where he will be vacationing for two weeks. You agree to meet him tomorrow for lunch.

You decide to get the 1952 sedan washed and cleaned. You are now thinking about the meeting tomorrow with the dealer from Washington, DC.

Worksheet for the Seller

1. What price do you expect to sell the 1952 four-door Packard sedan to the dealer from Washington, DC? \$ _____
Why? _____
2. What price would you like to sell the 1952 four-door Packard sedan to the dealer from Washington, DC? \$ _____
Why? _____
3. What is the lowest price that you would accept for selling the car to the Washington dealer? \$ _____
Why? _____
4. Briefly explain how you plan to handle the meeting at lunch tomorrow with the car dealer from Washington, DC.

5. Will you insist on buying lunch tomorrow or will you let him pay for it? Please check the most appropriate answer.
() I will insist on buying lunch.

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- () It doesn't matter who buys lunch.
- () I will let him buy lunch.

2. _____
 3. _____

EXHIBIT 2 THE CAR DEALERS GAME

Confidential Instructions to the Buyer

The following information is confidential. No one else has seen this information. However, you may give some or all of the information to other persons during the game.

You are a new and used car dealer in Washington, DC. One day last week a diplomat from the Libyan Embassy requested you to locate a 1952 four-door Packard sedan. The diplomat wants the car for a present to his father back home. If this car is found in working order, he will pay \$20,000 or \$10,000 if in good but not running condition.

After three hours on the phone this morning, you have located a dealer in Columbia, South Carolina, with a 1952 four-door Packard in working order. You talked with the dealer personally. You asked the dealer in Columbia if you could meet him tomorrow. You told him that you would stop in Columbia on your way to Florida for a two-week vacation. The dealer in Columbia agreed to meet you tomorrow for lunch.

You have arranged to have a truck ready to bring the 1952 sedan back to Washington. Your travel plans are complete.

You are now thinking about the meeting tomorrow with the car dealer in Columbia.

Worksheet for the Buyer

1. What price do you expect to pay for the 1952 four-door Packard sedan from the dealer in Columbia? \$ _____
Why? _____
2. What price would you like to buy the 1952 four-door Packard sedan from the dealer in Columbia? \$ _____
Why? _____
3. What is the highest price that you would pay for buying the car from the Columbia dealer? \$ _____
Why? _____
4. Briefly explain how you plan to handle the meeting at lunch tomorrow with the car dealer in Columbia? _____
5. If you do buy the car tomorrow, what price will you sell the car to the diplomat from Libya? \$ _____
Why? _____

Each is given a "Bill of Sale" after both complete their respective worksheets. The buyer and seller are introduced to each other and requested "to meet together to reach an agreement, complete and sign one of the bill of sales provided and return when the meeting is concluded." A private room with a table and chairs is provided for their meeting. The bill of sale is shown as Exhibit 3.

EXHIBIT 3 THE CAR DEALERS GAME

Bill of Sale

I, Columbia car dealer, hereby sell 0247653 Packard 4-door sedan to Washington, DC. car dealer for the following price: \$ _____.

This bill of sale is subject to the following conditions and terms (state conditions and terms, if any):

1. _____

Date _____ Signature, Columbia Car Dealer

Date _____ Signature, Washington Car Dealer

This game was developed and revised with the cooperation and suggestions of four car dealers in Columbia, South Carolina in September and October 1979. An extreme price range of likely expectations was included by confidentially informing the subject in the selling role that he intended to sell the car for \$300 and the subject in the buying role that he had a customer willing to pay \$20,000 for such a car. This extreme range was included to permit substantial flexibility in Outcomes to the negotiation, thus, the possibility exists to study causes for extremely favorable/unfavorable outcomes.

Several of the features of the game could be changed easily to make the game into a simulation of a commonly occurring marketing situation. However, the game was designed purposely to represent an uncommon, yet realistic, negotiation Situation where both parties could gain/lose much respective to several outcomes which might occur. Thus, either party can win or lose a substantial share of the potential profits in the game.

To include an opportunity for integrative bargaining, the participants were verbally instructed that they could add conditions and terms onto the bill of sale to any agreement reached.

No time limit was mentioned to the subjects to complete their meeting.

The game developed is less complex than the games of economic exchange developed by Siegel and Fouraker [19], Kelley and Schenitzki [8], and Stern et al. [21] in that the subjects are given profit tables and asked to agree upon a price/quantity combination at which goods are to be exchanged. Only one unit, a single car, is the quantity included in the negotiation, unless the subjects add additional cars or other items to the negotiation (which did occur in a few instances!).

Subjects. A total of 54 managers participating in an executive development course on marketing decision-making in the College of Business Administration, University of South Carolina, in the fall 1979 and spring 1980 was the subjects used in the study. The average length of service with their respective firms was B years with a range of 2 to 24 years. The average age of the subjects was 42. None of the subjects was a car dealer or sold cars as an occupation.

A FEW PROPOSITIONS

Buyers and sellers are likely to develop strategies regarding the respective highest and lowest price that they would be willing to pay or accept in a negotiation when they have some knowledge of the value of the product to be exchanged. (1) Based on Homans' [7] exchange theory and economic reasoning, for the buyer in the game, a price somewhat less than \$20,000 is hypothesized to be the highest price he would be willing to pay. (2) For the seller in the game, a price somewhat above \$300 is hypothesized to be the lowest price he would be willing to accept, (3) Third, the highest willing to

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pay price is hypothesized to be greater than the lowest willing to accept price based on the design of the game.

(4. Similar to the third hypothesis, the price the buyer expects to pay is hypothesized to be greater than the price the seller expects to sell. (5) However, the difference in buyer-seller expectations is hypothesized to be less than the difference in their fall-back positions (i.e., highest and lowest prices they would accept). The rationale for the fifth hypothesis is that the buyer and seller are each likely to consider the power of the other parts when mentally calculating a fair price or a price somewhat but not extremely favorable to their own position when planning on an expected price.

(6) The "like to buy" price is hypothesized to be the lowest price of the three buying prices formulated by the buyer. (7) The "like to sell" price is hypothesized to be the highest price of the three prices formulated by the seller. These prices are wish prices by the buyer and seller, i.e., prices they each believe unlikely and extremely favorable to their own circumstances.

(8) The contract price is hypothesized to be less than the buyer's expect to pay price. (9) The contract price is hypothesized to be greater than the seller's expect to sell price. Given the range in the written price offers to buy the car reported initially to both parties, most subjects should contract for prices better than their expectations.

Will the negotiated (contract) price be closer to the seller's or buyer's wish (like to) price? (10) Given the custom of the seller first stating an asking price and thus enabling the buyer to learn some information about the seller's preference, the contract price is hypothesized to be closer to the buyer's wish price than the seller's wish price. (11) The

lower the buyer's expect to pay price, the lower the contract price. (12) The higher the seller's expect to sell price, the higher the contract price. These hypotheses are based on the strategic rules-of-thumb that it pays to start low if you're the buyer or start high if you're the seller and then compromise. These hypotheses are supported by prior laboratory research where subjects bargained against simulated opponents programmed to follow given Schedules of bids [4, 10, 11, 16].

RESULTS AND DISCUSSION

Two dyads were eliminated from the data analysis for misunderstanding the information and instructions.

The means and standard deviations for the price strategies and contract prices are listed in Table I. The first 9 hypotheses are supported. The strategic decision-making of the subjects meet a set of reasonable hypotheses.

The average difference between the buyer and seller strategies (\$11,291) for their highest (lowest) price willing to pay (sell) is more than twice the difference between their expected prices (\$5,106). This confirms hypothesis 5. The average difference in the expected prices between the buyers and sellers was substantially greater than the difference in their like to or wish prices (\$308). Given the relatively small difference in the buyers' and sellers' like to prices, the finding that the average length of time to complete the negotiation was only 18 minutes and all 25 groups reached an agreement are unsurprising.

Hypothesis 10 is unsupported. The average contract price is closer to the seller wish price than the buyer's wish price. Assuming that the seller was the first to ask

TABLE I
AVERAGE BUYER AND SELLER PRICE STRATEGIES AND CONTRACT PRICE
(Standard Deviations)

Decision	A. Buyer Strategy n=25	B. Seller Strategy n=25	A-B	p ^a
Highest (lowest) price that you would pay (accept),	(1) \$12,960 (4,659)	(2) \$1,669 (2,184)	\$11,291	<.01
Price you expect to pay (sell),	(3) 8,120 (5,280)	(4) 3,014 (3,935)	5,106	<.05
Price you would like to buy (sell), the parties' wish price	(5) 6,032 (4,217)	(6) 5,724 (11,066)	308	n.s.
Price on the bill of sale (contract price)	(7) 5,180.60 (5,381) n=50			
Additional comparisons:	(1) - (7) = \$7,779.40, t = 5.69 (2) - (7) = -3,511.60, t = 3.74 (3) - (7) = 2,939.40, t = 1.96 (4) - (7) = -2,166.60, t = 2.79 (5) - (7) = 851.49, t = 0.71 (6) - (7) = 543.40, t = 0.32		^a t-test results for unrelated samples, d.f. = 48 for each test.	

t = 1.71, p < .05
d.f. = 24
(one-tailed test).

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for a specific price, this information was likely used by the buyer to influence an agreement even better than the buyer's own wish price. This strategy was apparent in two observed negotiations and reported in the de-briefings by several buyers.

Hypothesis 1 is unsupported. The contract prices were unrelated to the levels of the buyers' expect to pay ($r=.03$), like to pay ($r=.25$), or highest pay prices ($r=.08$). Hypothesis 12 is supported. The contract prices were related to the sellers expect to sell ($r=.69$, $p<.01$), like to sell ($r=.68$, $p<.01$), and lowest price willing to accept ($r=.50$, $p<.01$). Thus, the buyer was willing to acquiesce to the seller's preferences, not a bad strategy given the likely substantial profit margin involved.

From the average seller's perspective, a price of \$5,180.00 is over 17 times greater than he expected to receive before the telephone call from the buyer. Thus the average seller likely believed that he realized an extremely favorable outcome from the negotiation. The average buyer would have had to pay \$1,158.75 to receive the same profit rate as actually received by the average buyer. The contract price would be \$2,450 for both to receive the same rate of profit, assuming a \$20,000 future selling price.

The most important conclusion is that strategic decision-making of buyers and sellers is likely to be influenced by their perceptions of their own bargaining positions and not their perceptions of the other party's bargaining positions. For the seller, planning negotiation strategies in terms of "customer value," i.e., develop demand oriented pricing instead of cost oriented pricing, may require special training. For the buyer, to plan negotiation strategies in terms of "value analysis," i.e., establishing vendor's costs of materials, labor, overhead and profit instead of accepting list price, may require special training.

REFERENCES

- [1] Bonoma, Thomas V., "Toward a Social Analysis of Consumption: Buyer-Seller Negotiations in Context," in A. C. Woodside, J. N. Sheth, and P. D. Bennett (eds.), Consumer and Industrial Buying Behavior, New York: North-Holland, 1977, pp. 345-354.
- [2] Busch, Paul and David T. Wilson, "An Experimental Analysis of a Salesman's Expert and Referent Bases of Social Power in the Buyer-Seller Dyad," Journal of Marketing Research, 13, 1976, pp. 3-11.
- [3] Capon, Noel, Morris B. Holbrook, and James Hulbert, "Industrial Purchasing Behavior: A Reappraisal," Journal of Business Administration, 4, 1972, pp. 62-77.
- [4] Chertkoff, J. M. and M. Conley, "Opening Offer and Frequency of Concession as Bargaining Strategies," Journal of Personality and Social Psychology, 7, 1967, pp. 181-185.
- [5] Cialdini, Robert B., Leonard Bickman, and John I. Cacioppo, "An Example of Consumeristic Social Psychology: Bargaining Tough in the New Car Showroom," Journal of Applied Social Psychology, 9, 1979, pp. 115-126.
- [6] Cialdini, Robert, "Full Cycle Social Psychology," in L. Bickman (ed), Applied Social Psychology Annual, Beverly Hills: Sage, 1980, forthcoming.
- [7] Homans, George C., Social Behavior: Its Elementary Forms (New York: Harcourt Brace Jovanovich, 1974).
- [8] Kelley, H. H. and D. P. Schenitzki, "Bargaining," in C.G. McClintock (ed.) Experimental Social Psychology, New York: Holt, Rinehart and Winston, 1972.
- [9] Kelman, H. C., "Social Psychological Approaches to the Study of International Relations: The Question of Relevance," in H.C. Kelman (ed.) International Behavior: A Social Psychological Analysis, New York: Holt, Rinehart and Winston, 1965.
- [10] Komorita, S.C. and R. Brenner, "Bargaining and Concession Making Under Bilateral Monopoly," Journal of Personality and Social Psychology, 9, 1968, pp. 15-20.
- [11] Liebert, R.M., W.P. Smith, J.H. Hill, and M. Keiffer, "The Effects of Information and Magnitude of Initial Offer on Interpersonal Negotiation," Journal of Experimental Social Psychology, 4, 1968, pp. 431-441.
- [12] Levitt, Theodore, Industrial Purchasing Behavior (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1965).
- [13] Morley, I. E., "Bargaining and Negotiation: The Character of Experimental Studies," in H. Brandstetter, J.H. Davis, and H. Schuler (eds.) Dynamics of Group Decisions, Beverly Hills: Sage, 1978, pp. 175-200.
- [14] Morley I. E. and C. N. Stephenson, The Social Psychology of Bargaining (London: George Allen and Unwin, 1977).
- [15] Nemeth, C., "A Critical Analysis of Research Utilizing the Prisoner's Dilemma Paradigm for the Study of Bargaining," in L. Berkowitz (ed.), Advances in Experimental Social Psychology, Vol. 6, New York: Academic Press, 1972.
- [16] Pruitt, C.G. and D.F. Johnson, "Mediation," Journal of Personality and Social Psychology, 14, 1970, pp. 239-246.
- [17] Rubin, J. and B.R. Brown, The Social Psychology of Bargaining and Negotiation (New York: Academic Press, 1975).
- [18] Schuler, H., "Part III, Mixed-Motive Interaction," in B. Brandstatter, J.H. Davis, and H. Schuler (eds.) Dynamics of Group Decisions, Beverly Hills: Sage, 1978, pp. 169-174.
- [19] Siegel, S. and L.E. Fouraker, Bargaining and Decision Making (New York: McGraw-Hill, 1960).
- [20] Sheth, J.N., "Buyer-Seller Interaction," in C. Zaltman and B. Sternthal (eds.) Broadening the Concept of Consumer Behavior, Chicago: Association for Consumer Research, 1975, pp. 131-140.
- [21] Stern, L., B. Sternthal and C. S. Craig, "Managing Conflict in Distribution Channels: A Laboratory Study," Journal of Marketing Research, 1973, pp. 169-179.
- [22] Wodehouse, PG., Aunts Aren't Gentlemen (London: Barrie and Jenkins, 1974).