SMITH, David Harold, 1936-
AN EXPERIMENTAL STUDY OF COMMUNICATION RESTRICTION AND KNOWLEDGE OF THE OPPONENT'S MINIMUM DISPOSITION AS VARIABLES INFLUENCING NEGOTIATION OUTCOMES.

The Ohio State University, Ph.D., 1966
Speech

University Microfilms, Inc., Ann Arbor, Michigan
AN EXPERIMENTAL STUDY OF COMMUNICATION RESTRICTION AND
KNOWLEDGE OF THE OPPONENT'S MINIMUM DISPOSITION
AS VARIABLES INFLUENCING NEGOTIATION OUTCOMES

Dissertation
Presented in Partial Fulfillment of the Requirements for the
Degree Doctor of Philosophy in the Graduate School of
The Ohio State University

By
David H. Smith, B.S., M.A.

***************
The Ohio State University
1966

Approved by
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ACKNOWLEDGMENTS

The author wishes to acknowledge the special assistance given to him in the conduct of this study by Professor Harold Pepinsky, Professor Richard D. Rieke, and Professor Franklin H. Knower.
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# CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGMENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VITA</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLES</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ILLUSTRATIONS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I THE DETERMINATION OF NEGOTIATION OUTCOMES</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech and decision making</td>
<td>1</td>
</tr>
<tr>
<td>Negotiation as a decision system</td>
<td>3</td>
</tr>
<tr>
<td>Concessions</td>
<td>11</td>
</tr>
<tr>
<td>Power</td>
<td>13</td>
</tr>
<tr>
<td>Commitment</td>
<td>16</td>
</tr>
<tr>
<td>Focal points</td>
<td>18</td>
</tr>
<tr>
<td>Level of aspiration</td>
<td>20</td>
</tr>
<tr>
<td>Game theory</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II COMMUNICATION AND NEGOTIATION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The role of communication</td>
<td>26</td>
</tr>
<tr>
<td>Information</td>
<td>27</td>
</tr>
<tr>
<td>Persuasion and coercion</td>
<td>32</td>
</tr>
<tr>
<td>Rationalization</td>
<td>35</td>
</tr>
<tr>
<td>Credibility of communication</td>
<td>35</td>
</tr>
<tr>
<td>Research on communication in negotiation</td>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III THE RESTRICTION OF COMMUNICATION AS A DETERMINATE OF NEGOTIATION OUTCOME: EXPERIMENT I</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypotheses</td>
<td>42</td>
</tr>
<tr>
<td>Selection of a negotiation problem</td>
<td>43</td>
</tr>
<tr>
<td>Selection of subjects</td>
<td>44</td>
</tr>
<tr>
<td>Control of the sex variable</td>
<td>46</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Settlements in Experiment I</td>
</tr>
<tr>
<td>2</td>
<td>Time Required for Settlements in Experiment I</td>
</tr>
<tr>
<td>3</td>
<td>Satisfaction Scores for Experiment I</td>
</tr>
<tr>
<td>4</td>
<td>Percentage Discrepancies of the Estimates of Opponents' Minimum Dispositions in Experiment I by Communication Conditions</td>
</tr>
<tr>
<td>5</td>
<td>Percentage Discrepancies of the Estimates of Opponents' Minimum Dispositions in Experiment I by the Success of the Negotiator</td>
</tr>
<tr>
<td>6</td>
<td>Successful Negotiators in Experiment I by Number of Siblings and Communication Conditions</td>
</tr>
<tr>
<td>7</td>
<td>Successful Negotiators in Experiment I by the Presence of a Negotiator in the Family and Communication Condition</td>
</tr>
<tr>
<td>8</td>
<td>Settlements Achieved under Both Conditions of Experiment II</td>
</tr>
<tr>
<td>9</td>
<td>Settlements Within $50,000 of $250,000 in Free Condition, Experiment I and Both Conditions, Experiment II</td>
</tr>
</tbody>
</table>
ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ikle's Negotiation System</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>The Sawyer-Guetzkow Negotiation Model</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Stevens' Conflict-Choice Model of Negotiation</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>The Function of Information in Negotiation</td>
<td>29</td>
</tr>
<tr>
<td>5</td>
<td>The Ikle-Leites Model of the Negotiation Process</td>
<td>34</td>
</tr>
</tbody>
</table>
CHAPTER I

THE DETERMINATION OF NEGOTIATION OUTCOMES

Speech and decision making

The study of speech and communication has traditionally been concerned with the decision making process of which communication is frequently a part. Aristotle in *The Rhetoric* views speaking largely from a decision making perspective. In listing the uses of rhetoric he makes the first use that of assuring that decisions are made as they should be made. ¹

In his classification of types of speeches Aristotle's deliberative and forensic classes are clearly decision oriented. ²

The pervasive concern with persuasion in speech literature makes sense only when importance is placed on decision making by individuals and the society. The long standing interest in argumentation is based on its function in debates leading to decisions. The study of group discussion is the study of decision making in a particular type of social setting.

² Ibid., p. 17.
Parliamentary law is comprised of rules which insure that decisions are made within the framework of democratic principles. The student of speech is in a real sense a student of the operation of decision making systems.

Within any given decision system more or less emphasis may be placed on the elements of strategy and inquiry. Debate, for example, is a system in which the role of the individual debater is that of a strategist and his behavior involves the implementation of his strategy. In discussion the individual participant is viewed as a searcher engaging in inquiry in pursuit of the best decision.

Decision systems may also be described on the basis of who makes the decision. In debate decisions are made by third parties, critics, judges, legislators, voters, etc. In discussion decisions are made by the discussants themselves.

Negotiation is a decision system which, like debate, places the participant in the role of a strategist, but which, like discussion, requires agreement among the participants themselves for a decision to be reached. From this perspective negotiation can be viewed as involving essentially the same elements as debate and discussion, but as combining them differently. Since speech has concerned itself with these elements in two combinations it seems appropriate that this third combination also be subjected to study.
Negotiation as a decision system

Negotiation is a system of decision making characterized by a mixture of common and conflicting interests on the part of the parties involved in making the decisions. The commonality of interests rests in the necessity that both parties must agree to any decision. The conflicting interests are in regard to the disposition of the substantive issues peculiar to the situation.

The critical element in negotiation is its mixed-motive character. The negotiator is moved to cooperate, on the one hand, in order to secure some decision. On the other hand, however, he must be competitive in order to insure the most favorable possible settlement for himself or those whom he represents. It is this mixture of cooperation and conflict which gives to negotiation its uniqueness as a decision system. Stevens terms this a symbiotic relationship. ³

Negotiation demands that the participants have a real incentive to achieve an agreement. Much of what is ostensibly termed negotiation takes place for reasons other than achieving agreement. Parties may go through the motions of negotiation in order to gain time to build up resources for open conflict, to impress a constituency or a third party, to achieve propaganda advantage, etc. While the talks in which

parties with such motives engage may be popularly termed negotiation, for the purposes of theoretical analysis they must be excluded from consideration. The absence of motivation to achieve a settlement of differences precludes the application of negotiation theory.

It is also important to distinguish negotiation from cooperative problem solving. While the absence of sufficient cooperation, as indicated above, prevents a situation from being properly termed negotiation, the absence of an important competitive element may also preclude the application of negotiation theory. When negotiators realize or develop identical goals the system has changed from strategy to inquiry. The parties to negotiation must be attempting to "best" each other, not to find the "best" solution.

Attempts to analyze negotiation have followed a number of different lines. Several writers have attempted to develop structural frameworks within which negotiation occurs.

Ikle in considering international negotiation lists four kinds of agreements which serve as negotiation objectives: extension, normalization, redistribution, innovation (Figure 1). He sees the particular objective as determining much of what happens in the negotiation. The actual negotiation process itself is described as involving at any instant for each

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## Five Objectives of Negotiation

<table>
<thead>
<tr>
<th>Subject of Negotiation</th>
<th>Extension Agreement</th>
<th>Normalization Agreement</th>
<th>Redistribution Agreement</th>
<th>Innovation Agreement</th>
<th>Side-Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuation of normal (renewals or replacements).</td>
<td>Termination of abnormal (cease-fire, truce, resumption of diplomatic relations).</td>
<td>New distribution in favor of offensive side (surrender of territory, liberation of colonies).</td>
<td>New institutions or other arrangements of mutual interest.</td>
<td>The less likely the agreement, the more important the side-effects.</td>
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</tr>
</tbody>
</table>

### Main Characteristics of Negotiating Process
- Strong influence of previous agreement: as a precedent, and in limiting areas of dispute.
- Strong influence of situation at time of negotiations. Domestic or third-party pressures toward normalization.
- Continuous division between offensive and defensive side. Continuous open threat of offensive side.
- Inducement of mutual benefits, and risk of exclusion. A specially interested party may act as initiator.

### In Case of Prolonged Negotiations
- Both sides lose.
- In case of continuing hostilities, stronger party may win by force instead of negotiation.
- Defensive side postpones loss, but redistribution may begin to look like normalization.
- Interest in innovation may shift from one side to the other.

### In Case of No Agreement
- Interruption of customary arrangements.
- Either continuation of fighting (or of abnormal relations) or subsiding of fighting (tacet truce).
- Either status quo or implementation of threat by offensive side.
- Continuation of status quo.

### Side-Effects
- Sid effects continue to flow from negotiating process.
- Side-effects nonetheless materialize and may be used to vindicate negotiations.

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FIGURE 1. IKLE'S NEGOTIATION SYSTEM
negotiator a threefold choice. He may accept the terms he expects that his opponent would settle for. He may break off negotiations with no intention to resume them. He may try to improve the available terms through bargaining. It is this bargaining process then, which carries on the search for agreement within his system.

Sawyer and Guetzkow visualize international negotiation as involving five aspects: goals, process, outcomes, background factors, conditions. These are arranged in the model, Figure 2.6

Writers in labor relations conceive of negotiation as a cyclical system with "early" and "late" stages. Stevens sees the earlier stages as being more competitive and featuring tactics of coercion and deception, while later stages or "predeadline" stages will involve more cooperation, with coordination and tactics of insuring mutual convergence becoming more important.7 This cycle notion stems from the existence of the contract expiration date in United States labor relations. The cycle is based on the deadline created by the likelihood of a strike at a particular time. Such a


7 Stevens, pp. 10-12.
FIGURE 2. THE SAWYER-GUETZKOW NEGOTIATION MODEL
deadline may not be so prominent in negotiation in other situations. Nonetheless, even in business and international negotiations failure to achieve agreement by a particular time will mean the elimination of the possibility of agreement without greatly increased costs.

Stevens offers another framework within which negotiation may be viewed. This is his conflict-choice model. The conflict-choice model is of the avoidance-avoidance type. Two negative goals, capitulating to the opponents terms and maintaining ones current position with no settlement, represented by A and B respectively in Figure 3, generate avoidance gradients AA, and BB. These gradients are sloped to reflect the principle that the strength of avoidance increases the closer the negative goal is approached. D represents distance from the goal. Position D1 represents an equilibrium position in which the negative attraction of each goal is equal. Occupying this position, however, creates tension. If some other choice is available the individual will choose it. For this reason he will elect to negotiate. Bargaining may develop an additional alternative. When negotiation occurs each party is assumed to occupy such a tension generating equilibrium position. If one party's gradients do not cross so as to create an equilibrium, a condition, A'A',

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FIGURE 3. STEVENS' CONFLICT-CHOICE MODEL OF NEGOTIATION
exists in which the choice is clear. There is at every point a greater tendency to avoid A than B, hence the choice is made in favor of B.

Negotiation may result in one party changing his avoidance gradients so that goal A becomes everywhere preferable to goal B. His opponent may achieve this by the use of tactics which raise the avoidance gradient to goal B, called class I tactics, or by the use of tactics which lower the avoidance gradients to goal A, class II tactics.

If we visualize the avoidance-avoidance figures for each of the parties superimposed on one another, agreement is possible if the two equilibrium positions can be made to correspond by use of tactics of either type, and if the parties are aware that they correspond. Awareness of this correspondence requires communication.

Since both equilibria involve tension the anxiety generated may lead to breakdown rather than settlement. The use of class I tactics involves an increase in tension by increasing the avoidance intensity while the use of class II tactics involves a decrease in tension by decreasing the intensity of avoidance. It follows then, that negotiations involving emphasis on class I tactics are more likely to break down than those involving class II tactics.

Within any of these frameworks something goes on which leads to decision. For Ikle it is the bargaining relationship.
For Sawyer and Guetzkow it is the process. For Stevens it is the nature of the tactics. This "something that goes on" can be analyzed from various perspectives. Six of these will be considered. None seems sufficient in itself to provide a complete understanding of negotiation, but each adds an interesting dimension.

**Concessions**

The concessions theory, sometimes called the swap theory, views the negotiation process as one of mutually exchanged concessions. In its simplest form the concessions theory pictures each side starting at a given point and, alternately, reducing the extent of its demand until the two demands converge at a point midway between the initial demands. The concessions notion does not require that concessions be equivalent, only that they be reciprocal. Large initial demands by parties are seen as forming the basis for a bargaining position from which concessions are to be made. (Ikle and Leites call these sham bargaining positions.)

A number of researchers, Siegel and Fouraker among others, have been concerned with the maximum joint outcome or Pareto Optima. This is simply the point at which the

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The largest total return to both parties is achieved in a settlement. The sum of the agreed upon receipts of both parties is a great as possible. This point would be achieved by alternating concessions by each party. "The notion of a Pareto Optimum Solution involves progressive concessions to a point where neither could make further gains without the other party incurring a loss."  

The patterns of concessions obtained in Seigel and Fouraker's research, and the somewhat similar work of Schenitzki, correspond to this pattern. This result was in part determined by the experimental design, however, which made the exchanging of written offers the only mode of bargaining.

Bartos simulated international bargaining with subjects giving short speeches. He found that the later a proposal was introduced into a negotiation session the more it influenced the final decision, and the more likely a mediator was to endorse it. This would seem to suggest some convergence of offers for settlement consistent with a concessions theory.

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point of view.

Cross has postulated a theory that time and rate of concessions is critical to the bargaining process. He suggests that each party has an expectation of the rate at which the other party will make concessions. His own rate of concession is determined by comparing the actual rate of concessions made by his opponent with the expected rate.\textsuperscript{14}

While it seems clear that concessions are made in actual negotiations, factors other than simply concession patterns and rates seem to influence outcomes. Settlements are not reached simply by a formula splitting of the difference. Other factors seem to influence the concessions.

Power

One factor which is seen as having impact on concessions and settlements is the relative power of the parties. This is a common sense notion. The bigger and stronger you are the more your opponent will have to defer to your wishes. If the power disparity between two parties is too great, however, negotiation will not operate as a decision system. Negotiation requires some degree of interdependence.

Dubin analyzes the amount of conflict in labor-management relations. He concludes that the disparity of power is one of the factors affecting the amount of conflict, and that

conflict will be greater when there is relatively equal power.  

Harsanyi quotes Dahl as to the constituents of a power relationship. These are:

a. the bases of power (the resources)
b. the means of power (the specific actions of party A)
c. the scope of power (the specific acts B will undertake in response to A's actions)
d. the amount of power (the probability of B acting in response to A's action)
e. the extent of power (the set of Bs over which A has power)  

Harsanyi adds two constituents to this list.

f. the opportunity costs of A's using his power over B
g. the opportunity costs of B refusing to do what A wants  

It is not difficult to conceive of these operating in the negotiation situation to affect the outcome. Harsanyi suggests

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four ways in which A can manipulate the incentives or opportunity costs of B. These describe the dynamics through which the power relationship is discovered and/or operates.

a. A may provide new advantages or disadvantages to B subject to no conditions.

b. B may set up rewards and punishments subject to certain conditions as to B's future behavior.

c. A may supply information on existing advantages or disadvantages connected with alternatives open to B.

d. A may rely on legitimate authority over B or on B's personal affection for A.\(^\text{18}\)

It is insufficient to consider the power only of the parties to the negotiation itself. The role of interested third parties is also of importance. The influence of the federal government or public opinion may be critical to the outcome of a labor-management contract. The major world powers indirectly or directly influence international arrangements even when they themselves are not a party to the negotiations. A power analysis must consider power brought to bear on the negotiating parties by parties external to the negotiation itself.

Power in negotiation is likely to be relative to the situation and issue. It is more difficult to exercise power on some issues and in some situations than in others. The opportunity costs to the parties are not constant across all

\(^{18}\text{Ibid.}, \text{pp. 383-384.}\)
issues. For this reason it is insufficient to treat the power relationship of parties as the same for all issues and situations.

The willingness to use power is also an important consideration in a power analysis. One party may have the ability to punish the other, but be unwilling to do so. Fear of third party power, moral reservations about the use of certain kinds of power, wariness as to the reaction of his constituency to the use of power, unwillingness to sacrifice the good will of the opponent or third parties, etc., may prevent a party with potential power from actually exercising it.

Short of open conflict power itself does not operate. Only the estimate of power, and the estimate of the willingness of the parties to use power, operate to affect negotiations. It is under conflict that the ability of the parties to "hurt" one another, and to absorb "hurt" is actually determined. Negotiation during, or following open conflict is thus likely to be based on a more accurate power estimate. A threat remains a bluff until it is called.

Commitment

T. C. Schelling argues for commitment as a determiner of negotiation outcome. A bargainer achieves commitment

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when he decides firmly that there is a point beyond which he will make no further concessions, and when he takes a stand at that point. He offers his opponent the choice of settlement at this point or not at all. He says, in effect, that if you won't play his way he'll take his marbles and go home.

The effect of commitment is to leave the opponent with a "this or nothing" choice. It brings an end to bargaining. If the commitment point is preferable for the opponent to no settlement, he must then settle on the terms available at the commitment point. Since the possibility exists that the opponent will prefer no settlement to one at the commitment point choosing where to commit becomes an important factor. The committing party can use a commitment strategy effectively only if his opponent will indeed prefer the commitment point to no settlement. The successful use of a commitment strategy requires care in choosing the commitment point.

Since both parties cannot be faced with a "this or nothing" choice the advantage goes to the party who commits first. (Indeed it seems impossible to commit second.) The difficulty of knowing what is a safe commitment point, one which the opponent prefers to no settlement, is compounded by the requirement that commitment be made before the opponent

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20 It is interesting that the General Electric Co. collective bargaining system known as Boulwarism, which features a commitment strategy, has been ruled "failure to bargain in good faith" by the National Labor Relations Board.
commits. Stevens suggests the possibility that in a negotiation situation with no clear definition of alternating "moves" simultaneous commitment by both parties may occur with a consequent failure of the negotiation process to bring a settlement. 21

Simply committing, pledging oneself, is not sufficient. The commitment strategy depends on the opponent's belief that the committing party is not bluffing. The commitment strategy thus rests in large measure upon demonstrating that the commitment is real. Since the bluff is frequently used in negotiating it is usually insufficient for the party to simply say that he is committed. Somehow he must make the logic of the situation argue for the sensibleness of his act of committing. In this situation it is weakness rather than strength that becomes useful. If the party is constrained by the circumstances from acting otherwise it is more likely that his opponent will believe him to be truly committed. To the extent that the party has the power to change the circumstances it will be more difficult to make the commitment believable. Thus the commitment theory posits an advantage for weakness.

Focal points

Schelling offers a second way in which we can view the determination of negotiation outcomes. These may come as a

21 Stevens, p. 86.
result of the operation of focal points. There are, accord­
ing to Schelling, points in particular situations which are
particularly compelling as possible solutions. When agree­
ment or compromise is being sought these will become parti-
cularly attractive. 22 Rivers or parallels seem to make good
boundaries for political settlement. Splitting the differ­
ence "fifty-fifty" seems an attractive solution to problems
involving quantities or amounts.

When a negotiating party is willing to make a conces­
sion to help reach agreement he seeks a way of making that
concession without appearing to be weakening. He does not
want the opposing party to think that he is willing to make
continued concessions. If the conceding party lessens his
demand his opponent may take this as evidence that he will
concede further and press for still greater concessions.
If, on the other hand, the point to which he concedes has
some situational logic favoring it as a settlement point,
his concession will not invite the pressure for further con­
cession that conceding to an arbitrary point would.

The recommendations of mediators and fact finding
boards may help provide focal points. Precedents, settle­
ment patterns, or economic indicators may function to make
some settlements seem conspicuous.

22 Schelling, pp.
Joseph and Willis found that the presence of a bargaining position which is central in some way can increase the probability of agreement. They note that the force of the central position may be that neither party perceives it as a defeat.\(^2\)

The focal point theory does not as yet, however, allow us to predict what in a given situation will constitute a focal point. There do not seem to be any laws which tell us what causes a focal point to emerge in a particular situation.

**Level of aspiration**

Siegel and Fouraker explain the results of their experimentation on bargaining in terms of the level of aspiration of the participants. Each bargainer enters into negotiation with an aspiration level. As he experiences resistance from his opponent he adjusts his level of aspiration downward until the levels of aspiration of the two parties overlap. It is at this point that agreement is possible.\(^3\)

Siegel and Fouraker's results show that subjects tend to achieve settlements consistent with an induced level of aspiration. Those with a "high" level of aspiration get


\(^3\)Siegel and Fouraker, pp. 61-70.
"high" results; those with a "low" level, low results. Siegel and Fouraker conclude that level of aspiration is an important determiner of differential payoff in bilateral monopoly bargaining.

Cross's theory, summarized under the discussion of concessions, seems consistent with this interpretation.\textsuperscript{25}

**Game theory**

Game theorists discuss "mixed motive" games, and the strategies for playing them. The game theorist is essentially a mathematician who seeks to determine the most rational decisions in what are typically abstract matrices of choices. Game theory assumes that individuals will behave so as to maximize satisfaction, utility in the economists' sense of the term.

The outcome of the game, then, is the result of the efforts of each player to maximize his own utility. When no clear outcome emerges from these attempts the game theorists seek to develop "mixed" strategies which will indicate the way to maximize utility in the repetitive play of the same game.

While game theory appears to approximate negotiation, the assumptions of game theory are so different from the conditions under which negotiation typically occurs that it has

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\textsuperscript{25}See page 13 for summary of Cross's Theory.
in reality little to offer the student of negotiation.

Game theory assumes the existence of a scale of utility into which all aspects of particular outcomes may be converted. It further assumes that this scale is the same for all parties to a game. Such a scale simply does not exist in reality. If it did the difficult "conflict" choices negotiators face would immediately be convertible to this utility standard and hence reduced to "no conflict" choices. In such a case bargaining would be unnecessary.

Game theory assumes that all parties know at the outset of the game the utilities they will assign to each possible outcome and the utilities their opponents will assign to each possible outcome. Real people, however, are not quite so sure how they will value all outcomes at the outset of a negotiation. Indeed their evaluation of outcomes may change as a result of bargaining. If negotiators don't have complete knowledge of their own utilities how much less will they know about their opponent's utilities? Yet game theory assumes complete knowledge of all utilities in advance by both parties.

Game theory assumes complete rationality on the part of the players. This means that they will act so as to maximize their utilities in all situations. The defense of this idea becomes tautological. When a negotiator behaves in a way that reduces the value of his own settlement in order to
punish an opposing negotiator for whom he has developed a dislike the only explanation the rationality postulate allows is that he behaves in this way because he has greater utility for the punishment than for the more favorable outcome. Utility, then, is determined by what the player does. He is rational no matter what he does because that is what he has chosen to do.

Game theory assumes that both players make their decisions among alternatives simultaneously. It further precludes communications before the choice is made. The threats, promises, bluffs, side payments, offers, and counter offers which characterize negotiation are thus excluded.

The game theorist defines the game in terms of the combinations of possible outcomes. In studying these he excludes from consideration the variables involved in the personalities of the players and the characteristics of the process of interaction.

Empirical research using game theory problems has been conducted in order to determine what people really do when faced with these decisions. These are of relatively little interest to the student of negotiation, however, because they typically involve the testing of mixed strategies

\[26\] Schelling suggests that this assumption is not necessary for game theory, but virtually all games discussed by game theorists make it.
through the playing over and over again of the same simple
game without the opportunity to bargain or communicate
directly in any way.

Lieberman compared the actual behavior of intelligent
individuals with the behavior prescribed by the pure conflict
zero-sum game theory models. He concluded that "nowhere can
we say that all individuals behave precisely as a rational
theory prescribes." He notes earlier that "where cooperation
is mixed with conflict, where people are opponents and simul-
taneously have to coordinate their interests, we do not have
anything that approaches the convincing solution we have for
the two-person zero-sum game . . . . Most interesting social
conflicts do not satisfy the rather stringent requirements of
game theory."27

Rappaport and Orwant introducing their summary of game
research capsulize the problem of using game theory to
analyze negotiation. "Thus game theory is normative rather
than descriptive; that is to say its conclusions state how
rational people ought to behave rather than how real people
do behave."28

27Bernhardt Lieberman, "Experimental Studies of Con-
lict in Some Two-Person and Three-Person Games," Mathe-
atical Methods in Small Group Processes, ed. Joan H. Gris-
well, Herbert Soloman and Patrick Suppes (Stanford: Stanford

28Anatol Rappaport and Carol Orwant, "Experimental Games: A
While game theory may be quite limited in the contribution it makes to negotiation analysis the other perspectives discussed, concessions, power, commitment, focal points, and levels of aspiration add to our understanding. These other perspectives do not explain, however, why so much talking goes on when people negotiate. Limited communication would suffice for the operation of any one of these influences. Yet any observational description of an actual negotiation session would note extensive vigorous talking beyond the minimum required by these five variables. They seem an insufficient explanation of the negotiation process.
CHAPTER II
COMMUNICATION AND NEGOTIATION

The role of communication

Since communication is the means by which most of what we call negotiation is carried on it seems appropriate to ask what effect if any the communication process has on negotiation outcomes. It may very well be that while people generally talk when they negotiate, this process of symbolic interchange is not essential to, and has little influence on, the end product of the negotiation. The variables discussed in chapter one may be the determinate influences in negotiation with the same outcomes achievable under severely restricted conditions of communication as with free communication. The pattern of research in negotiation would seem to imply this conclusion. Few negotiation studies have permitted subjects to talk to one another. Communication has been tacit or by means of written offers with no opportunity for argument and explanation.

At the same time theoretical discussions of negotiation seem to place importance on the exchange of information and
the possibilities of influencing the opponent through communication. From these it is possible to see the communication process as functioning in three important ways in negotiation:

1. To discover information about settlements acceptable to one's opponent, and to reveal information about settlements acceptable to oneself.

2. To influence the acceptability of settlements to one's opponent or to be similarly influenced by one's opponent, by means of persuasion or threatened coercion.

3. To provide one's opponent with, or to seek from one's opponent, rationalization for the acceptance of settlements not previously thought acceptable either by the negotiator or his constituency, or both.

Information

It is important to be clear in considering the role of information in negotiation as to what the information is about. "Information" may be used to indicate what is known about the opponent's utilities. In Seigel and Fouraker's research, which shows that increasing the amount of information leads to a more equal division of profits, "information" is knowledge of the opponent's profits for each price and
quantity exchanged.¹ In other research "the amount of information" may indicate what settlements other subjects achieved for the same problem.² In other cases the "information" will refer to what is known about what outcomes are acceptable to the other party at a particular time. This is different from the "information" that is a knowledge of utilities. The knowledge of utilities notion requires a game-theory type rationality assumption in order to give an indication of what settlement is acceptable. Asking simply "What is the worst settlement that you will take?" seeks information of a different order. The answer is direct rather than the basis for an inference involving assumed rationality.

If we assume bargaining on a single issue at a time it is possible to rank order the possible settlements with the settlement at one extreme the most preferred for one party, and the settlement at the other extreme most preferred by the other party. There is, though it is not likely to be known absolutely in advance, a point beyond which each party will in the face of the pressures of negotiating, be unwilling to go. Figure 4 indicates this by expressing the rank order of settlements as a scale. A represents the settlement most preferred by party one. A' represents the least favorable

¹ Siegel and Fouraker, p. 28.
² Joseph and Willis, p. 119.
A - The settlement most preferred by party one
B - The settlement most preferred by party two
A' - The least favorable settlement party one will accept
     (his minimum disposition)
B' - The least favorable settlement party two will accept
     (his minimum disposition)
A'A - Range of settlements acceptable to party one
BB' - Range of settlements acceptable to party two
A'B' - Zone of overlap of acceptable settlements

FIGURE 4. THE FUNCTION OF INFORMATION IN NEGOTIATION
settlement he would be willing to accept. B represents the settlement most preferred by party two. B' represents the least favorable settlement party two would accept. (The point of least favorable acceptable settlement is termed by Ikle & Leites the minimum disposition.) Section A'B' of scale BA represents a zone of overlap of acceptable settlements. When such a zone exists it is the function of the communication process in negotiation to reveal it and bring an agreement within that zone. When such a zone does not exist communication will be used as a system for influence in order to move point A' or B' so as to create a zone of overlap.

Neither party knows at the outset whether such a zone of overlap exists, but each must behave as if it does in the hope of achieving a settlement at his opponent's point of minimum disposition, B' and A' respectively. If all potentially acceptable settlements are represented by the zone of overlap, A'B', then each party will hope to settle at the extreme point in that zone closest to his own most preferred end of the scale. In order for party one to achieve a settlement as near the minimum disposition of party two as he can he must find out what that minimum disposition point, B', is. If he can determine that point he can use whatever tactics

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3Ikle and Leites, p. 20.
he has at his disposal: threats, promises, bluffs, commitment, etc., to force the settlement at that point. Should he err and pick a point to the right of the zone of overlap, his attempt to force a settlement will lead to failure to reach agreement. Should his error be to the left he will achieve a less favorable settlement than had he identified B' accurately. Much of what party one does in the negotiation will be to seek information about party two's minimum disposition point, B'. Party two will likewise seek to determine party one's minimum disposition point, A'. Each knowing that the other would find this information useful will seek to prevent it from being discovered. This leads to the use of sham bargaining positions, phony final offers, etc., as means of preventing the minimum disposition from being discovered.

As the negotiation wears on, however, particularly as a deadline approaches, each side will seek to ensure that agreement does occur. Each party will want to make sure that his opponent does not guess his minimum disposition in the "wrong" direction, and cause disruption of bargaining. (As would occur if party one guesses B' to the right of its real location.) If the mutual deception process is too successful neither party may be able to determine where the zone of overlap is, and no agreement may be achieved when one is possible. Fearing this each party will reveal more
or less information to the opponent about his own minimum disposition. One important function of communication in negotiation, then, would seem to be as the means by which information about minimum dispositions is discovered and revealed. When negotiators are talking this is one of the things they are trying to do.

**Persuasion and coercion**

The points of minimum disposition, however, are not fixed in advance. They are determined under the pressures of the negotiation process. A negotiator may have some advance idea of what his minimum disposition may be, but what it actually is will not be known until he makes the decision in the face of his opponent's demands. If a zone of overlap does not become apparent, or if one party feels he can widen the zone by moving the opponent's minimum disposition in his preferred direction, the communication in the negotiation is likely to be used as a means of influence. This may be done either through persuasion or coercion.

Stevens distinguishes persuasion from coercion. Persuasion works on the opponent's preference function and/or his perception of the extra-negotiation environment, while coercion operates on the opponent's opportunity function.¹

In other words persuasion influences what he wants to do,

¹Stevens, p. 58.
and coercion what he is able to do. Persuasive activity will use arguments and appeals designed to demonstrate that the other party's evaluation of the outcomes of particular settlements are not accurate. The advantages of a particular demand for each party will be considered. The ability of each party to sustain the impact of certain concessions will be argued.

Coercion will be threatened through communication. Bluffs, promises, outright threats, and discussion of third party actions all may be involved in attempts to demonstrate to the opponent that his options are more limited than he thought, or that pressing a given demand will have particularly undesirable results.

The goal of both persuasive and coercive messages is to cause the opponent to shift his minimum disposition. Ikle and Leites in Figure 5 offer a model which demonstrates the relationship between the preferences, minimum dispositions, and bargaining positions of the negotiating parties. The discovery and revealing of information about minimum dispositions may, of course, be part of the process of influencing the opponent. The uses of communication in negotiation overlap and interact. Kuhn explains this relationship.

..... the evaluations of the outcomes are not constant during the course of the negotiations.

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5Ikle and Leites, p. 21.
FIGURE 5. THE IKLE-LEITES MODEL OF THE NEGOTIATION PROCESS
Perhaps the most significant actions open to the negotiators serve, on the one hand, to estimate these utilities and, on the other hand, to attempt to alter them. The records of recent disarmament conferences bear this out. Time and time again, the only purpose served by offer and counteroffer is to probe for evaluations of outcomes or to reveal partially our own estimates and aspirations.®

Rationalization

Stevens suggests a final function of communication, the supplying of rationalizations for concessions.® If a party makes concessions in negotiation he will have to justify them to himself and, frequently, to a constituency. The arguments during negotiation may not serve to influence the opponent to alter his willingness to accept certain conditions of settlement. Power and tactics may do this. The arguments may supply him with reasons he can give to himself or those he represents for succumbing to the influence brought to bear on him.

Credibility of communication

Since much of the communication in negotiation may be sham, designed to mask real preferences, the problem of how to make one's communication believable is a frequent one. Deising describes the problem.


7Stevens, pp. 73-76.
During negotiations each side tries to obtain an objective estimate of the other side's power and readiness to act, and to exaggerate its own power position. The stronger one's position is thought to be, the more one can gain from negotiations, so it is advantageous to try to induce one's opponent to make as high an estimate as possible. Consequently, deception rather than honest communication is advantageous and each side tries to bluff the other. Elaborate bluffing tactics are followed, and the experienced negotiator learns to avoid detection by continually varying his bluffing pattern.

The regular use of bluffing leads each side to discount the statements of the other, so that it becomes increasingly difficult to exaggerate one's power position. Eventually, discounting proceeds so far that one's power or readiness to act is even underestimated, so low estimates must be corrected by a statement of one's true position without deception and without misunderstanding.\(^8\)

But there may not necessarily be some way to say "This time I really mean it," and be believed. It may be impossible to be credible if one has been consistently bluffing. Schelling suggests that credibility can best be achieved by manipulating the situation so that what one says is so must really appear to be so, due to the external constraints.\(^9\)

If it becomes impossible to achieve credibility the use of third parties for whose benefit neither party need bluff may facilitate the sending and receiving of credible messages.

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\(^9\) Schelling, pp. 24-25.
The role of mediators and conciliators includes the ability to convey credible messages between the parties to the dispute.

Research on communication in negotiation

Relatively little research has dealt directly with communication as a variable in negotiation. Most negotiation studies have in their designs limited the communication process rather severely. In the experiments involving repetitive play of the same game, direct communication is eliminated entirely. Only the knowledge of previous selections by the opponent serve as cues to his likely choice.

In other studies communication is limited to written offers of settlement. At times information about opponents' profits from particular settlements is also available. Kent using such a design found that taken together with Seigel & Fouraker's data any differences in bargaining power due to such differences in information about opponents' payoffs will be very small.¹⁰

Deutsch found that the opportunity to communicate was associated with increased tendency of subjects to choose cooperatively.¹¹ Loomis found that subjects with more

¹⁰Kent, p. 63.

opportunity to communicate behaved more cooperatively and expressed more trust in one another. 12 Deutsch and Krauss suggest that "Where barriers to communication exist a situation in which subjects are compelled to communicate will be more effective than one in which the choice to talk or not is put on a voluntary basis." 13 Scodel, Minas, Ratoosh, and Lipetz found an increase in joint cooperation responses as a function of communication. 14

It must be remembered, however, that in none of the above cases were the subjects able to communicate as freely as they would like. In all cases the comparison was between restricted communication and no communication. At least part of the reason for this is that this research was designed basically to test other variables. There was a fear that a constellation of uncontrolled variables would accompany opportunities to communicate freely face-to-face. Seigel and Fouraker express this attitude.

.... we have deliberately controlled and minimized the effects of interpersonal


stimulation by conducting the bargaining situations with individuals isolated from each other, and by prohibiting any, but conventionalized communication between them.\textsuperscript{15}

The effect of allowing the process of communication to operate freely on negotiation cannot be known from these studies.

Schenitzki, using basically Siegel and Fouraker's design, manipulated communication as a variable in an experiment in which he also induced a group goal orientation as opposed to an individualistic orientation. The subjects under "free" communication were permitted to talk about anything they wanted with the exception that they could not reveal the profit specified for them for any particular settlement proposed, nor could they use numbers in any way. The results for the individualistically oriented subjects show that they reached the maximum joint profit as often under "free" as under "restricted" communication, but that those bargaining under the "restricted" condition felt angry toward their opponents more often.\textsuperscript{16} (The results under the group-goal condition are not of interest because the induction of a group-goal is presumed to create a cooperative situation rather than a situation of partial conflict.)

Schenitzki's results provide a partial answer to Siegel and Fouraker's claim that broadened communication would

\textsuperscript{15}Siegel and Fouraker, p. 100.

\textsuperscript{16}Schenitzki, pp. 81-124.
bring increased interpersonal conflict and, hence, fewer mutually satisfactory settlements. At the same time, however, Schenitzki found it necessary to restrict at least somewhat what his subjects could talk about. They were specifically forbidden to reveal what their profits would be, and to use numbers. The bargainers were attempting to agree on a price and quantity of an unspecified commodity. Each knew only the profit he would make for each quantity at each price. While the subjects had some freedom to communicate they had very little to communicate about. There was no basis for, and no need for, a discussion of what was fair or reasonable. No consideration of precedents was possible. No attempts could be made to alter the opponent's perception of the desirability of a certain outcome. The situation simply did not create the kind of communication one would expect to find in non-laboratory negotiation.

Siegel and Fouraker have suggested that free communication would make negotiation less effective. Both Stevens and Ikle and Leites postulate that negotiate outcomes are affected by the communication process. Schelling raises the question as to whether full communication, no communication,

17 Siegel and Fouraker, p. 100.
18 Stevens, pp. 57-76.
19 Ikle and Leites, pp. 22-26.
or asymmetrical communication is most likely to yield an efficient, mutually non-destructive, solution.\textsuperscript{20}

The present study was designed as an attempt to develop empirical evidence as to the effect of the kind of free communication common to non-laboratory negotiation on negotiation outcome.

\textsuperscript{20}Schelling, p. 166.
Hypotheses

In order to generate data as to the impact of the communication process on negotiation it was decided that an experimental study of the effect of restricting that process ought to be undertaken. The following were hypothesized:

1. There is no difference in the number of negotiations which fail to result in settlement under free and restricted conditions of communication.

2. There is no difference between negotiation settlements attained under free and restricted conditions of communication.

3. There is no difference in the time needed to achieve agreement under free and restricted conditions of communication.

4. There is no difference between the satisfaction of negotiators with settlements attained under free and restricted conditions of communication.

5. There is no difference in the accuracy of negotiators' estimates of their opponents' minimum dispositions under free and restricted conditions of communication.

6. There is no difference in the accuracy of the negotiators' estimates of their opponents' minimum dispositions between successful and unsuccessful negotiators.
Selection of a negotiation problem

It was felt that the experimental design should permit completely unrestricted opportunity for communication under the free condition, and provide subjects with a negotiation problem which would generate issues for argument. It was further felt that since many negotiators act as representatives of constituencies it might be well to cast the subjects in that role. The settlements of an experimental study lend themselves more easily to comparison when they can be placed on a single scale.

Because of these considerations the basic elements of a legal case were rewritten in a fictionalized form and used as the basis for negotiation (Appendix I). Each subject was cast in the role of either defense or plaintiff's attorney in what was a suit for damages by an individual against a drug company. The details of the case were written in such a way as to create a desire on the part of each attorney to settle out of court. Some information concerning precedents, extent and type of injury, amount of loss, and government action was included to provide the basis for argument. The general topic of the case was based on an actual law case of considerable interest, and the fictionalized account seemed to be intrinsically interesting. The settlement was to be expressed in a dollar amount which allowed for easy comparability.
Selection of subjects

It seemed important to be sure that the subjects who participated in the experiment would want to do well for their clients. To ensure this it was decided that subjects should be screened so that those who actually participated would be competitive people who were able to assume the role of an attorney and find it important to do well in the role. Several alternative procedures were considered for the screening function. If those people who played competitively at parlor games could be selected it was thought that they might fit the requirements for participation. The use of certain personality tests was considered. These two procedures were rejected, however, in favor of selecting as subjects those persons who did well in a brief preliminary negotiation of the type to be used in the experiment itself. The chosen procedure was deemed most direct and created conditions more analogous to the experimental condition in which the subjects were to function. A short fictional description of a damage case was written (Appendix I).

The subject pool consisted of students in introductory speech courses at the Ohio State University, Autumn Quarter 1965 and Winter Quarter 1966. Entire classes were instructed that negotiation was both a competitive and cooperative process. They were asked to play the role of attorneys, to pair off by turning their chairs around, and then they were
given the screening case. When the members of a pair com­
pleted negotiation they raised their hands and were given a
form to fill out which asked for the amount of their settle­
ment, whether they enjoyed participating, and whether they
would like to do a similar task again (Appendix I). At the
end of fifteen minutes those subjects who had not reached
agreement after repeatedly being urged to do so were instructed
to indicate "no agreement" on their report forms.

Observation of the subjects participating in the screen­
ing bargaining showed a high level of involvement in the
negotiation problem. Many of the subjects were curious about
the experiment and were eager to participate.

On the basis of the first 73 settlements the median was
computed at $5000. Those defense attorneys settling for
$5000 or less were determined to have negotiated successfully;
those plaintiffs' attorneys settling for $5000 or more were
deemed successful. Those unable to agree were also consid­
ered to be competitive and able to play the role, and thus
were included in the subjects to be used in the experiment.
No subject, neither a successful negotiator nor one unable
to reach agreement, was used in the experiment who answered
"no" to the question, "Would you like to participate in this
kind of activity again?" asked at the conclusion of the
screening negotiation.
Control of the sex variable

The question of whether or not to control the assignment of opponents in the final experiment so as to assure an equal number of pairs of the same and of mixed sexes was considered. The research results on the effect of sex on negotiation are contradictory. Gallo and McClintock list five studies in which sex has no apparent effect, and two in which women were somewhat less competitive. They conclude that "A large number of studies have failed to demonstrate any relationship between the sex of the players and choice behavior."1 Other studies have, however, shown some differences according to sex.

In the face of contradictory evidence it seemed useful to determine whether sex was a factor determining the successful negotiator in mixed sex pairs in the screening bargaining. It was decided that if one sex or the other fared significantly better in mixed sex bargaining then sex would be considered an important variable to control.

Data was available on 20 mixed-sex pairs which had reached a settlement not at the median figure. Of these 20 settlements in 11 cases the male had been the successful negotiator, and in 9 cases the female had been the successful negotiator.

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negotiator. This difference does not approach statistical significance. It was, therefore, decided on the basis of these results, and on the basis of Gallo and McClintock's conclusion about the trend of other research, not to assign opponents on the basis of sex.

**Administration of the experiment**

Subjects from a particular class who had been selected to participate in the experiment were taken during their class hour to a classroom or seminar room. They were assigned opponents and roles, attorney for the defense or plaintiff, randomly. As few as 4 and as many as 12 subjects bargained simultaneously in the same room.

Subjects were told that they had done well in the screening negotiation and had, thus, been chosen to negotiate again. They were reminded of the necessity to be both competitive and cooperative. They were instructed to raise their hands when they had reached agreement. The experimenter would then give them questionnaires (Appendix I) and tell them how long it had taken them to reach agreement.

In the free communication condition subjects were told to proceed as they had in the screening negotiation. They were free to talk to each other, and to say whatever they chose to say. They were asked not to talk to other bargaining pairs nor to discuss with one another their post-negotiation questionnaire responses until both had handed in
their questionnaires.

In the restricted communication condition subjects were seated back-to-back. They were instructed to confine all their interaction to the writing of offers of settlement, the acceptance of offers, or writing of counter offers on the written communication form (Appendix I). They were told not to talk to, poke, or gesture to their opponents.

When the instruction was completed the case for negotiation was handed to each subject along with a sheet of instructions to him as either attorney for the defense or attorney for the plaintiff (Appendix I).

When the instruction sheets were handed out the time clock was started. When each pair completed its bargaining it was told the time elapsed to the nearest minute for recording on the questionnaire.

As the end of the class hour approached subjects were reminded several times of the importance of reaching a settlement. If they still indicated an inability to agree they were told to reread the instructions to them as attorneys which clearly explain the reasons the attorneys should seek a settlement.

The total number of subjects participating in experiment one was 120. Twenty-nine pairs bargained under the free communication condition, and 31, under the restricted communication condition.
Results

Of the 60 negotiating pairs 54 reached agreement on a settlement. The settlements ranged from a low of $6000 to a high of $1,075,000 (Table 1). The median settlement was $100,000.

Of those 6 pairs not reaching agreement all bargained under the condition of restricted communication. A chi square analysis of this difference yields a value of 4.28 with 1 degree of freedom which is significant at the .05 level of confidence. Hypothesis #1 is thus rejected. There is a statistically significant difference in the number of negotiations which fail to result in settlement between free and restricted conditions of communication. Failure is more likely to result under restricted communication.

When the 54 settlements are ranked together, as in Table 1, and submitted to the Mann-Whitney U Test a z value of .8584 is derived which does not approach the 1.96 needed for significance at the .05 level of confidence. It is thus impossible to reject hypothesis #2 on the basis of the sum of the ranks of the settlements.

It is apparent, however, from inspection of Table 1 that the highest and lowest ranks are predominantly settlements under the free condition. Of the first 13 ranks only 3 were attained under the restricted condition. Of the last 8 ranks only 1 was attained under restricted communication. These
TABLE 1

SETTLEMENTS IN EXPERIMENT 1

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<tr>
<th>Amount</th>
<th>Rank</th>
<th>Communication</th>
<th>Amount</th>
<th>Rank</th>
<th>Communication</th>
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<td>Free</td>
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<td>100,000</td>
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extreme ranks tend to cancel each other out under the sum of ranks procedure of the Mann Whitney U Test or under any difference test based on central tendency. For this reason the semi-interquartile range, Q, and the .01 confidence limits of Q were computed for each range. In neither case could the Q of the one range be included within the .01 confidence limits of the Q of the other.² It seems reasonable to conclude, then, that there is a significant difference in the range of settlements achieved under free and restricted conditions of communication. The free communication condition resulted in a significantly greater range of settlements. Hypothesis #2 is thus rejected.

Table 2 gives the length of time required by each pair to achieve a settlement. When the sum of ranks is tested through the Mann Whitney U Test a z value of 1.46 is achieved which is less than the 1.96 needed for the .05 level of confidence. Hypothesis #3 is, thus, not rejected.

In order to determine the satisfaction of participants with their settlements questions 6 through 10 on the post-negotiation questionnaires (Appendix I) were used. The

²

\[
\begin{align*}
Q_{res} &= \$149,725 \\
SE_{Qres} &= \$35,731 \\
SE_{Qres}^2 \cdot 2.58 &= \$92,185 \\
Q_{res} + (SE_{Qres} \cdot 2.58) &= \$241,910 \\
Q_{free} &= \$370,312.50 \\
SE_{Qfree} &= \$81,692 \\
SE_{Qfree}^2 \cdot 2.58 &= \$210,765 \\
Q_{free} - (SE_{Qfree} \cdot 2.58) &= \$159,547 \\
SE_Q &= \frac{1.167Q}{\sqrt{N - 1}}
\end{align*}
\]
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<th>Free Communication</th>
<th>Restricted Communication</th>
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response choices were treated as 1-5 scales. Questions 8, 9, and 10 were scored in the same way on both questionnaires. On questions 8 and 9 the high end of the scale, 5, was assigned the response "very pleased". On question 10 the high end of scale, 5, was assigned to the response "very displeased". On the Defense Attorney's Questionnaire question 6 was weighted heavily, 5, for the response "much higher" and question 7 was weighted heavily, 5, for the response "much lower". On the Plaintiff's Attorney Questionnaire the weightings for these two questions were reversed.

Each subject's responses were scored and totaled yielding the figures in Table 3. Ferguson argues that "the empirical evidence suggests that even for quite small samples, say of the order of 5 or 10, reasonably large departures from normality will not seriously affect the estimation of probabilities for a two-tailed t test." Since the satisfaction scores on Table 3 are characterized by a large number of ties, and an unequal N in each group, the t test was used as a test of significance. A t value of .2112 was derived. This does not approach the 1.658 needed for the .05 level of confidence with 120 degrees of freedom. Hypothesis #4 cannot be rejected. There is no difference in the satisfaction

---

TABLE 3
SATISFACTION SCORES FOR EXPERIMENT I

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<th>Scores</th>
<th>Number at each Score</th>
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Mean = 15.02               Mean = 15.66
Median = 15                Median = 15
with settlements of negotiators bargaining under free and restricted communication conditions.

Questions 11 and 12 on the questionnaires were used to investigate the function of the minimum disposition. Question 11 sought to elicit from the subjects what their minimum dispositions were, and question 12 sought their estimates of their opponents' minimum dispositions. The discrepancy between each subject's estimate of his opponent's minimum disposition, and what the opponent said that minimum disposition was, was computed. In order to eliminate large differences resulting from the varying size of settlements the discrepancies were converted to percentages of the settlements achieved by each pair. These percentages are shown on Table 4. A number of subjects did not report interpretable figures for questions 11 and 12. When the two groups were ranked together and submitted to the Mann Whitney U Test a z value of 1.38 was obtained which does not equal the 1.96 needed for significance at the .05 level of confidence. Hypothesis #5, thus, is not rejected. No statistically significant difference is apparent in the accuracy of the estimates of opponents' minimum dispositions under free and restricted communication conditions.

In order to investigate the relationship between success in negotiation and the accuracy of the estimate of the opponent's minimum disposition those plaintiffs' attorneys
### TABLE 4
PERCENTAGE DISCREPANCIES OF THE ESTIMATES OF OPPONENTS' MINIMUM DISPOSITIONS IN EXPERIMENT I BY COMMUNICATION CONDITIONS

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achieving settlements higher than the median were considered successful, and those settling below the median were considered unsuccessful. Conversely, those defense attorneys settling below the median were considered successful, and those settling above the median, unsuccessful. Those for whom reportable discrepancy data was available are indicated on Table 5. When the two groups are ranked together and the Mann Whitney U Test is applied a z value of .824 is obtained which does not approach the 1.96 needed for significance at the .05 level of confidence. Hypothesis #6, is, thus, not rejected. There is no statistically significant difference between the accuracy of the estimates of opponents' minimum dispositions between successful and unsuccessful negotiators.

Of additional interest was the possibility that success in negotiation might be a function of family size. For this reason question 4 was included. It was reasoned that individuals with a large number of brothers and sisters might be more competitive, and might have had to bargain more than those subjects with a small number of brothers and sisters. Data on this relationship appears in Table 6.

A chi square test was run for the results under each communication condition separately. Under the free communication condition a value of 2.81 was obtained. Under the restricted condition a value of 1.815 was obtained. A value of 7.82 is needed for the .05 level of confidence with
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<tr>
<td></td>
<td>5 8 6 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 degrees of freedom. The value for neither communication condition approaches that level. It cannot be concluded from these data that the number of siblings is directly associated with negotiation success or failure.

A similar investigation was made of the effect on negotiation success of having someone in the subject's family who participates in negotiation. Here it was argued that the influence of negotiators' interest and experience in negotiation might make subjects from their families more likely to succeed. Question 3 on the questionnaire provided the basis for this analysis. The data are shown on Table 7. Simple inspection of the results shows almost identical numbers of successful and unsuccessful subjects from families of each kind, under each communication condition. There is on the basis of these data no reason to believe that success is related to the presence of a negotiator in the subject's family.

Discussion

The rejection of hypotheses #1 and #2 provides useful information on the role of communication in negotiation. Apparently the opportunity to communicate influences what happens in negotiation.

The opportunity for communication made it easier for the bargainers when placed under the pressure of the laboratory procedure to achieve the settlement they were instructed
TABLE 7
SUCCESSFUL NEGOTIATORS IN EXPERIMENT I BY THE PRESENCE OF A NEGOTIATOR IN THE FAMILY AND COMMUNICATION CONDITION

<table>
<thead>
<tr>
<th></th>
<th>Successful</th>
<th></th>
<th>Unsuccessful</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negotiator in the Family</td>
<td>No Negotiator in the Family</td>
<td>Negotiator in the Family</td>
<td>No Negotiator in the Family</td>
</tr>
<tr>
<td>Free Communication</td>
<td>7</td>
<td>20</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Restricted Communication</td>
<td>7</td>
<td>17</td>
<td>7</td>
<td>17</td>
</tr>
</tbody>
</table>
to achieve. Since pressure for settlement frequently characterizes non-laboratory negotiation this finding should be expected to apply widely. Siégel and Fouraker's assertion that the opportunity for free communication would lessen the likelihood of agreement is not supported by these results. The cases of failure to agree all came under the restricted communication condition. Communication tends to operate as a functional rather than dysfunctional influence in situations of partial conflict. The widespread notion of talking over differences is apparently a more useful approach than attempting to settle them without talking.

In considering hypothesis #2 it is particularly interesting that the difference was found in the range of the settlements rather than in their central tendency. The apparent effect on negotiation outcomes of the opportunity to communicate is to allow one party or the other to push the settlement further in his desired direction. It is not clear what the determining communication function was, discovery and control of information, influence, supplying rationalizations, or some combination of the three, but whatever it is that causes settlements to be influenced by one negotiator or the other it apparently operates more strongly when communication is free. If the use of whatever determining force is

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4 See Chapter II, page 38.
available in negotiation is considered a skill, apparently skillful defense attorneys can make better use of their skill when communication is free, hence the settlements at the low end of the range, and skillful plaintiff's attorneys can use their skills more effectively, hence the high settlements. It seems reasonable to conclude that if communication skill itself is not at least partially determinate of negotiation outcomes, the determinate factor is facilitated by communication skill and the opportunity for it to be used.

This finding has particular significance in the evaluation of research results in which the designs placed restrictions on the communication process. It also suggests the importance of additional research concerning the interaction process operating during negotiation. Specifically, useful might be research which analyzed the communication behavior of successful negotiators in contrast to that of unsuccessful negotiators.

In listening to the subjects negotiate, the experimenter noted frequent discussion of the seriousness of the plaintiff's condition, the fairness of offers and court precedents, and the responsibility of the company, the government, and the defendant. Interaction on topics such as these are obviously not possible when communication is restricted.

The difference in time needed for settlement while not statistically significant at the .05 level of confidence is
in the direction of more time required under the free condition. The $z$ value of 1.46 is significant at the .14 level of confidence which is outside the region of rejection established. This difference, however, apparently provides some minimal evidence that free communication exacts a cost in terms of time.

The conditions of the experiment, however, should limit the faith we should have in these results. The subjects negotiated during class periods when they normally would have been listening to speeches or observing discussions. They showed a strong tendency to regard the experiment as a substitute for class attendance. The end of the class hour became a kind of deadline for them. There was a tendency to settle quickly as the end of the class hour approached.

Since deadlines of one kind or another are common in negotiation this was not thought to change materially the negotiation process. At the same time, however, since some negotiators started as much as three to five minutes later in the hour than others, because of the differing slowness of subjects in arriving for the experiment, the deadline function of the end of the hour came into play at different points in the negotiation for different subjects. Better control of the time factor might yield different results.

While the difference in mean satisfaction scores does not begin to approach significance, observation of the
negotiators under the restricted communication condition showed frequent signs of frustration at their inability to tell their opponents what they were thinking or trying to achieve. Settlements generally moved in the direction of reciprocal concessions in the same way that they did for Seigel and Fouraker, and Schenitzki. The subjects under restricted communication apparently were no less or more satisfied with the outcomes of their bargaining than those under free communication. They may have found the bargaining itself more frustrating, however.

The evidence concerning minimum dispositions provided by this experiment is not very strong. The minimum disposition is difficult to guess. Subjects were asked for their minimum dispositions. There is no way, however, to know if under negotiation pressure these would actually have been the minimum disposition points. Of the 120 subjects 24, or 1/5 of the subjects did not answer this question with meaningful replies. This casts further doubt on the quality of the data generated by those who did respond.

The differences in accuracy of estimate while not within the established region of rejection was in the direction of greater accuracy for the estimates under the restricted condition. Since the only interchange between restricted bargainers was in the form of offered settlements some advantage would seem natural for the restricted bargainers estimating
accuracy. Free communicators as indicated above spent much of their time talking about issues rather than confining themselves to considering settlement size.

The comparing of the accuracy of winners' and losers' estimates showed no tendency for one or the other to be more accurate.

The second experiment, reported in Chapter IV, was designed in a large measure to get further and more reliable data on the role of knowledge of the opponent's minimum disposition in negotiation.
CHAPTER IV

KNOWLEDGE OF THE OPPONENT'S MINIMUM DISPOSITION AS A DETERMINATE OF NEGOTIATION OUTCOME: EXPERIMENT II

Hypotheses

Inasmuch as the method of determining the opponent's minimum disposition was not wholly satisfactory under experiment I, experiment II was designed to provide for manipulation of that variable directly.

Three hypotheses were developed.

1. There is no difference in the success of negotiators who are informed of their opponents' minimum dispositions and those who are not.

2. There is no difference in the settlements achieved when one of the negotiators is informed of his opponent's minimum disposition and when he is not.

3. There is no difference in the tendency of settlements to cluster around a minimum disposition when one is supplied and when it is not.

Procedures

The procedures used in experiment II were the same as those in the free condition of experiment I. The same case for discussion was used. The same screening method was used. The instructions to the attorneys differed, however. The
defense attorney's instructions told him that his company had decided as a general policy not to settle out of court for more than $250,000 (Appendix II). This in effect created a minimum disposition for the defense attorney. One group of plaintiff's attorneys was given the same instructions as the plaintiff's attorneys in experiment I. This group was called the uninformed group. The second group of plaintiff's attorneys was given those instructions, but in addition was told that the drug company had decided not to settle for more than $250,000 (Appendix II). This group was called the informed group.

Two-hundred fifty thousand dollars was chosen as the figure because it was higher than about two-thirds of the settlements in experiment I, but not so high that it would have no effect on the bargaining. The defense attorney could attempt to settle below it, but he would have a limit likely to come into consideration reasonably often.

Results

A total of 78 subjects participated in experiment II. Of these, 20 pairs bargained under the uninformed condition, and 19 under the informed condition.

The 39 settlements in Table 8 were subjected to the median test yielding a chi square value of .104 which does not approach the 3.84 needed for the .05 level of confidence with 2 degrees of freedom. Hypothesis #1 is thus not rejected.
TABLE 8
SETTLEMENTS ACHIEVED UNDER BOTH CONDITIONS OF EXPERIMENT II

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Rank</th>
<th>Information Condition</th>
<th>Settlement</th>
<th>Rank</th>
<th>Information Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>975,000</td>
<td>1</td>
<td>Un.</td>
<td>225,000</td>
<td>21</td>
<td>Inf.</td>
</tr>
<tr>
<td>650,000</td>
<td>2</td>
<td>Un.</td>
<td>215,000</td>
<td>22</td>
<td>Un.</td>
</tr>
<tr>
<td>500,000</td>
<td>3</td>
<td>Inf.</td>
<td>200,000</td>
<td>23</td>
<td>Un.</td>
</tr>
<tr>
<td>450,000</td>
<td>4</td>
<td>Un.</td>
<td>200,000</td>
<td>24</td>
<td>Inf.</td>
</tr>
<tr>
<td>400,000</td>
<td>5</td>
<td>Inf.</td>
<td>180,000</td>
<td>25</td>
<td>Un.</td>
</tr>
<tr>
<td>350,000</td>
<td>6</td>
<td>Un.</td>
<td>175,000</td>
<td>26</td>
<td>Un.</td>
</tr>
<tr>
<td>325,000</td>
<td>7</td>
<td>Un.</td>
<td>170,000</td>
<td>27</td>
<td>Un.</td>
</tr>
<tr>
<td>300,000</td>
<td>8</td>
<td>Inf.</td>
<td>160,000</td>
<td>28</td>
<td>Inf.</td>
</tr>
<tr>
<td>300,000</td>
<td>9</td>
<td>Inf.</td>
<td>150,000</td>
<td>29</td>
<td>Inf.</td>
</tr>
<tr>
<td>260,000</td>
<td>10</td>
<td>Un.</td>
<td>150,000</td>
<td>30</td>
<td>Un.</td>
</tr>
<tr>
<td>250,000</td>
<td>11</td>
<td>Inf.</td>
<td>140,000</td>
<td>31</td>
<td>Inf.</td>
</tr>
<tr>
<td>250,000</td>
<td>12</td>
<td>Un.</td>
<td>125,000</td>
<td>32</td>
<td>Inf.</td>
</tr>
<tr>
<td>250,000</td>
<td>13</td>
<td>Inf.</td>
<td>101,000</td>
<td>33</td>
<td>Inf.</td>
</tr>
<tr>
<td>250,000</td>
<td>14</td>
<td>Un.</td>
<td>100,000</td>
<td>34</td>
<td>Inf.</td>
</tr>
<tr>
<td>250,000</td>
<td>15</td>
<td>Inf.</td>
<td>100,000</td>
<td>35</td>
<td>Un.</td>
</tr>
<tr>
<td>250,000</td>
<td>16</td>
<td>Un.</td>
<td>100,000</td>
<td>36</td>
<td>Un.</td>
</tr>
<tr>
<td>250,000</td>
<td>17</td>
<td>Inf.</td>
<td>100,000</td>
<td>37</td>
<td>Un.</td>
</tr>
<tr>
<td>250,000</td>
<td>18</td>
<td>Un.</td>
<td>82,000</td>
<td>38</td>
<td>Un.</td>
</tr>
<tr>
<td>250,000</td>
<td>19</td>
<td>Inf.</td>
<td>75,000</td>
<td>39</td>
<td>Inf.</td>
</tr>
<tr>
<td>250,000</td>
<td>20</td>
<td>Inf.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There is no tendency for plaintiffs under one condition to achieve more of the high settlements than under the other.

The ranked settlements were submitted to the Mann Whitney U test yielding a $z$ value of .2535 which does not approach 1.96 needed for significance at the .05 level of confidence. This taken together with the median test indicates failure to reject hypothesis #2. There is no significant difference between settlements obtained under the informed and uninformed condition.

In testing the third hypothesis the number of settlements in the range $200,000$ to $300,000$ was tabulated for all settlements in experiment II, and for the free condition in experiment I. The only difference between these two groups was the supplying of the $250,000$ minimum disposition in experiment II. Table 9 gives the data. When the difference is tested with the Chi Square Test a value of 6.82 is obtained which is significant at the .01 level of confidence. Hypothesis #3 is thus rejected. Settlements do tend to cluster around a minimum disposition when one is supplied, more closely than when it is not supplied.

**Discussion**

The failure of informed plaintiffs to do better than uninformed plaintiffs in experiment II casts considerable doubt on the theory that information concerning the opponent's minimum disposition is an important determinate of negotiation
### TABLE 9

**SETTLEMENTS WITHIN $50,000 OF $250,000 IN FREE CONDITION, EXPERIMENT I AND BOTH CONDITIONS, EXPERIMENT II**

<table>
<thead>
<tr>
<th>Settlements</th>
<th>Experiment I Free Condition</th>
<th>Experiment II Both Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>From $200,000 to 299,000</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Not from $200,000 to 299,000</td>
<td>26</td>
<td>24</td>
</tr>
</tbody>
</table>
outcome as explained in Chapter II. The dominate communication impact must apparently be sought elsewhere.

Two factors, however, suggest that this conclusion not be held too strongly. These concern the effectiveness of the experimental design. Inspection of Table 8 demonstrates that under both conditions settlements were achieved above the $250,000 minimum disposition supplied. This took place despite the direct instructions concerning settlement given the defense attorneys (Appendix II). Apparently the instructions were not strongly enough worded to induce a "real" minimum disposition for some of the negotiators. This is true of about 1/4 of the settlements.

When it became apparent that subjects were settling above the minimum disposition prescribed, several of the defense attorneys involved were asked why they had exceeded their instructed limit. Their answers were all about the same. They felt that the company would do even worse in court, and to insure a settlement conceded above the $250,000 figure.

A second reason for questioning the effectiveness of the design comes from the observation made by the experimenter that some of the defense attorneys in order to elicit concessions were revealing their instructions to the plaintiff's attorneys. This made little difference to the informed plaintiff's attorneys, but it converted the uninformed to
informed, and destroyed the difference between the two groups. It is not known how often this took place, but its occurrence does cast considerable doubt on our conclusions about hypotheses #1 and #2. If the control on information about the opponent's minimum disposition broke down the two groups were, indeed, not different, and the failure to find differences between them does not give us the basis for any conclusions about the role of information seeking and control in negotiation.

The finding that subjects to whom the $250,000 figure was supplied tended to settle near that figure more often than those to whom it was not supplied provides support for Schelling's focal point notion explained in Chapter I. The $250,000 figure when prominent as in experiment II was a compelling settlement point. When its prominence was not induced it was no more compelling than any of another number of points. Indeed no pair settled at $250,000 in experiment I under either condition while 10 of 39 did so under experiment II.

It is also possible to explain these results in terms of Siegel and Fouraker's level of aspiration idea explained in Chapter I. Those plaintiff's attorneys who knew or were told by the defense attorney where the defense could settle, fixed their aspirations on that point. Defense attorneys' aspiration levels could also have been effected by
the suggestion of the $250,000 figure.

The focal point theory seems a more compelling explanation, however, in that it can encompass the level of aspiration idea. The level of aspiration may be determined by the emergence of a focal point.
CHAPTER V
SUMMARY AND CONCLUSIONS

The present experiments were undertaken to investigate the role of the communication process in the determination of negotiation outcomes. Previous research in negotiation even when using communication as a variable had restricted it at least somewhat in the design.

Experiment I created a situation wherein subjects who had been successful in a screening negotiation assumed the roles of attorneys in negotiating a damage settlement out of court under two conditions of communication. Under free communication subjects were not restricted at all in their interaction. Under restricted communication they were limited to the exchange of written offers of settlement.

Significantly more negotiations failed to result in settlement under restricted communication than under free communication. The implication of this result seems to be that the opportunity to talk freely assists the process of decision in negotiation and renders negotiation a more efficient decision system.
The range of settlements was significantly greater under free communication. Increased opportunity to communicate is apparently helpful to skillful negotiators in achieving larger or smaller settlements depending on whether they represented plaintiffs or defendants in the experiment. This would seem to indicate that if the communication process itself is not a determinate of negotiation outcome those factors which are determinate operate more forcefully when the opportunity to communicate freely is present.

Negotiation settlements, when achieved, did not require significantly longer under one communication condition than the other. Control of this variable was not as effective as might have been desired, however.

The satisfaction of negotiators with the settlements achieved was not significantly greater under either communication condition.

The ability to estimate the opponent's minimum disposition was not greater for subjects bargaining under one communication condition or the other.

Successful negotiators were not significantly better at estimating the opponent's minimum disposition than were unsuccessful negotiators.

Differences in the number of siblings of subjects did not make them more likely to be successful in negotiating.

The presence in the subject's family of an individual
who participates in negotiation did not make the subject more likely to be successful.

Experiment II was designed to give more reliable data on the role of the minimum disposition in the negotiation process. Procedures were identical with experiment I with the exception that the defense attorney was instructed not to settle above a certain figure. This supplied him with a minimum disposition. Half the plaintiffs attorneys were informed of what that minimum disposition was, and half were not.

Settlements in experiment II were clustered around the figure given as minimum disposition significantly more often than under the free communication condition of experiment I where no minimum disposition was supplied. Supplying a minimum disposition made it more likely to be the settlement point.

No differences were found in the success of informed and uninformed plaintiff's attorneys and no significant difference in the settlements under the two conditions was found. The practice of some defense attorneys in revealing their minimum dispositions to otherwise uninformed plaintiff's attorneys may well have destroyed the differences in information between the two groups sufficiently to obscure real differences. Little faith should be placed in failure to find differences.

Communication is apparently a variable worthy of attention
in the analysis of negotiation. The likelihood of settlements and the size of settlements are affected by the presence of the opportunity to communicate. The findings of these experiments did not determine what it is in communication that affects outcomes.

The findings concerning the role of the minimum disposition show that it tends to emerge as a focal point when introduced into the experimental design.

Further research seems warranted in order to assess the impact of information seeking and control, influence through persuasion and threatened coercion, and the supplying of rationalizations in the process of communication in negotiation.
APPENDIX I

FORMS USED IN EXPERIMENT I

The Negotiation Case
The Screening Case
The Screening Negotiation Report Form
Instructions to the Attorney for the Plaintiff
Instructions to the Attorney for the Defendant
Plaintiff's Attorney Questionnaire
Defense Attorney Questionnaire
Written Communication Form
THE NEGOTIATION CASE

Dunkle vs. Mercury Drug Co.

Both you and the opposing attorney have copies of this information.

The Mercury Drug Company after many years of expensive research developed a drug, RDR 30, for the treatment of patients with circulatory diseases. The company followed standard procedures of drug testing on animals, and subsequently applied to the Food and Drug Administration for permission to distribute the drug to physicians for experimental use. Permission was granted, and the drug was distributed with the usual cautions as to its experimental nature. Shortly thereafter reports from doctors indicated that for some patients RDR 30 caused loss of hair. The Mercury Company immediately notified all physicians who had received the drug of this danger. After a time additional reports came in from doctors, and these reported the development of cataracts on the eyes of a few patients. The Mercury Company immediately withdrew the drug.

Subsequently a number of persons, about 800, filed suit in different parts of the country charging Mercury with negligence in the distribution of RDR 30. The Food and Drug Administration reviewed the application for distribution of RDR 30 and found that Mercury had taken several shortcuts in their testing procedures, and fined them for misrepresentation on their application for distribution.

Four of the suits against Mercury have been tried. The plaintiff in each case accused Mercury of gross negligence and sought damages for the loss of hair and the removal of cataracts, and for the pain and suffering involved. They argued that since the Food and Drug Administration had found Mercury guilty of misrepresentation, the award should be made to the plaintiff.

Mercury has contended that the FDA ruling was in error implying that the FDA is attempting to make Mercury the scapegoat, that even if the FDA ruling were valid this would not prove negligence vis à vis the users of the drug since they all knew that it was an experimental drug, and that even if the company were negligent vis à vis the users of the drug they were not criminally negligent and therefore should pay only the actual costs to the plaintiff not large punitive
damages. (Punitive damages are required in cases where the negligent party is shown to have deliberately and hence criminally, been negligent. Damages thus are assessed in the way of a punishment for that act not just to offset the losses to that plaintiff. Both the damages and the punitive damages are paid to the plaintiff in the particular suit.)

In the four cases tried thus far the Mercury Company has twice been able to show no negligence on its part, or contributory negligence on the part of the plaintiff, and thus pay nothing at all. In one case Mercury was found negligent and paid $50,000 damages. It was not found criminally negligent, however. In the fourth case Mercury was found to be criminally negligent, and paid $45,000 in damages, and $1,500,000 in punitive damages. Mercury expects an appeals court to reduce this sum somewhat.

C. P. Dunkle developed cataracts and became bald as a result of using RDR 30. Mr. Dunkle is one of the remaining plaintiffs whose cases have not yet been decided. He has asked for $75,000 damages to pay for the costs of wigs, an operation for the removal of the cataracts, loss of wages, and pain and suffering involved in the loss of hair and the threat of blindness, plus $1,000,000 in punitive damages. The judge has told the attorneys that since similar cases have been tried four times he believes that they should settle out of court thus saving expenses and the time of a busy court. This really amounts to an order to negotiate a settlement.

You and your partner are the two attorneys involved. You are to negotiate a settlement. Be sure to read the special instructions to you on the next page.
THE SCREENING CASE

Marshall vs. Winslow

George Winslow while driving his automobile was forced to swerve to avoid hitting a child who had run into the street. In so doing he drove through and substantially destroyed a prize flower bed in Ann Marshall's front lawn. Miss Marshall had developed a special strain of royal lilies to show in a flower show. The strain was potentially valuable had it proved popular. She took great pride in it, and had worked for five years on its development. As a result of Mr. Winslow's action she must start again.

Miss Marshall has brought suit against Mr. Winslow asking $50,000 damages. She contends that the loss of the commercial potential of the strain, and the expense and effort in its development warrant this sum. She contends that Mr. Winslow was negligent in not having his car under control, and hence is responsible for the damaged flower bed.

Mr. Winslow contends that he could not have avoided both the child and the flower bed, and, hence, chose the more prudent course. He further contends that even had he been negligent $50,000 is an excessive sum for a flower garden, particularly when it was unguarded by a barrier of any kind and was located near a street.

Both attorneys recognize that this case should not come to court. Mr. Winslow has offered $1,000 as a settlement. The attorneys are meeting to negotiate a settlement. The two of you are to be the attorneys and negotiate a settlement. The one whose name is alphabetically nearer to A should represent Miss Marshall; the other, Mr. Winslow. Get the best settlement possible for your client's interests.
THE SCREENING NEGOTIATION REPORT FORM

Marshall vs. Winslow

What was the amount of your negotiation settlement? __________ 

Were you the attorney for Ann Marshall ________ or 
George Winslow? __________

Did you enjoy engaging in this negotiation? __________

Would you like to participate in this kind of activity again? __________

Name ________________________________ Phone number __________

Columbus Address ________________________________ Sex ________

Course ____________________ Hour ________ Instructor ________
INSTRUCTIONS TO THE ATTORNEY FOR THE PLAINTIFF

Your opponent does not have a copy of these instructions. This information is known only to you. What you reveal of it is your decision.

You are the attorney for C. P. Dunkle. You know that he has suffered as a result of using this drug. You believe that he is entitled to a settlement and the judge has advised you to come to an agreement with Mercury. Your client has given you complete authority to decide what is best. You are anxious to maintain your reputation as a highly successful claims attorney. You are to receive 1/3 of the amount of the settlement as your fee. You have a busy practice and are reluctant to take the time a trial would involve. If you can get a good settlement you may be better off to do that since it would free you to work on other cases also involving substantial fees. The judge has ordered you to settle through negotiation. You have the power to commit your client to a settlement.
INSTRUCTIONS TO THE ATTORNEY FOR THE DEFENDANT

Your opponent does not have a copy of these instructions. This information is known only to you. What you reveal of it is your decision.

You are the attorney for the Mercury Drug Company. Your job is to get the company off with the lowest possible settlement. You are aware that too high a settlement will hurt the company by setting a pattern in the other cases. The loss to the company from a series of high settlements could be ruinous. You are also aware that your standing in the company, your chances for retention and advancement, depend in large measure on your success with the RDR 30 cases. The company is reluctant to have further cases come to trial. Each of the past cases has resulted in considerable unfavorable publicity for the company. It is highly desirable to avoid that again. The judge has ordered you and the other attorney to make an agreement without a trial. You have the power to bind the company to such a settlement.
PLAINTIFF'S ATTORNEY QUESTIONNAIRE

1. What was your settlement?_________________

2. How long did it take to agree on it?_________________

3. Does your family include anyone who negotiates from time to
time?____In what capacity and situation?_________________

4. What is your sex?____What is your opponent's sex?____

5. How many brothers and sisters do you have?____0____1____2
___more than 2

6. If you were to negotiate this settlement again with a different opponent how would the settlement you would expect compare with this one? (circle one response) The new settlement would be:

   much somewhat the somewhat much
   higher higher same lower lower

7. How would you guess that your settlement compares with the average settlement? Your settlement would be:

   much somewhat the somewhat much
   higher higher same lower lower

8. If you were to report this settlement to your client or boss what do you think his reaction would be likely to be?

   very somewhat neither pleased somewhat very
   pleased pleased nor displeased displeased displeased

9. How would you describe your attitude toward this settlement?

   very somewhat neither pleased somewhat very
   pleased pleased nor displeased displeased displeased

10. How do you expect that your opponent would describe his own attitude toward this settlement?

    very somewhat neither pleased somewhat very
    pleased pleased nor displeased displeased displeased
11. If the negotiation had continued for a longer time you would have been faced with the decision as to what further concessions, if any, to make. Would you have settled for less? _____
What is the smallest settlement you would have been willing to take? $___________

12. Your opponent would have been faced with a similar problem. What do you think is the highest amount your opponent would have given? $___________
DEFENSE ATTORNEY QUESTIONNAIRE

1. What was your settlement?________________

2. How long did it take you to agree on it?________________

3. Does your family include anyone who negotiates from time to time?___ In what capacity and situation?________________________

4. What is your sex?____Your opponent's sex?____

5. How many brothers and sisters do you have?____0 _____1 _____2 _____more than 2

6. If you were to negotiate this settlement again with a different opponent how would the settlement you would expect compare with this one? (circle one response) The new settlement would be:
   much somewhat the somewhat much
   higher higher same lower lower

7. How would you guess that your settlement compares with the average settlement? Your settlement is:
   much somewhat the somewhat much
   higher higher same lower lower

8. If you were to report this settlement to your client or boss what do you think his reaction would be likely to be?
   very somewhat neither pleased somewhat very
   pleased pleased nor displeased displeased displeased

9. How would you describe your attitude toward this settlement?
   very somewhat neither pleased somewhat very
   pleased pleased nor displeased displeased displeased

10. How do you expect that your opponent would describe his own attitude toward this settlement?
    very somewhat neither pleased somewhat very
    pleased pleased nor displeased displeased displeased
11. If the negotiation had continued for a longer time you would have been faced with a decision as to what further concessions, if any, to make. Do you think you would have been willing in such a situation to offer more than you did? _____ What is the highest amount you would have been willing to give to Dunkle? $
$
12. Your opponent would have had a similar decision to make in the event of continued negotiation. What do you think would have been the lowest amount he would have been willing to accept? $
$
WRITTEN COMMUNICATION FORM

All communication between the two of you during your negotiation is to take place on this form. Please do not look at, talk to, or in any way signal your opponent. To do so will destroy the meaning of the experiment. Write only your offers or counteroffers on this sheet. Use the spaces provided. Use a new space for each offer. The defense attorney should begin. If you use all the space on this sheet request another one. When you are willing to accept an offer write "accept" on the space.

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APPENDIX II

FORMS USED IN EXPERIMENT II AND NOT IN EXPERIMENT I

Instructions to the Attorney for the Defense

Instructions to the Attorney for the Plaintiff
INSTRUCTIONS TO THE ATTORNEY FOR THE DEFENSE

Your opponent does not have a copy of these instructions. This information is known only to you. What you reveal of it is your decision.

You are the attorney for the Mercury Drug Company. Your job is to get the company off with the lowest possible settlement. You are aware that too high a settlement will hurt the company by setting a pattern in other cases. The loss to the company from a series of high settlements could be ruinous. You are also aware that your standing in the company, your chances for retention and advancement, depend in large measure on your success with the RDR 30 cases. The company is reluctant to have further cases come to trial. Each of the past cases has resulted in considerable unfavorable publicity for the company. It is highly desirable to avoid that again.

While the company is eager to get as low a settlement as possible, and is eager to avoid a trial, it has made a general policy decision that there is a point beyond which it will not be pushed. The company has decided that it will pay no more than $250,000 for an RDR 30 settlement. Above that figure it will go to court. You are still to try to achieve the lowest possible settlement, but you are not authorized to settle for more than $250,000.

The judge has ordered you and the plaintiff's attorney to negotiate a settlement. You have the power to bind the company to a settlement.
INSTRUCTIONS TO THE ATTORNEY FOR THE PLAINTIFF

Your opponent does not have a copy of these instructions. This information is known only to you. What you reveal of it is your decision.

You are the attorney for C. P. Dunkle. You know that he has suffered as a result of using this drug. You believe that he is entitled to a settlement and the judge has advised you come to an agreement with Mercury. Your client has given you complete authority to decide what is best. You are anxious to maintain your reputation as a highly successful claims attorney. You are to receive 1/3 of the amount of the settlement as your fee. You have a busy practice and are reluctant to take the time a trial would involve. If you can get a good settlement you may be better off to do that since it would free you to work on other cases also involving substantial fees. The judge has ordered you to settle through negotiation. You have the power to commit your client to a settlement.

Through a contact you are not willing to reveal you have learned that Mercury has made a general policy decision that it will not settle for more than $250,000 in any of the RDR 30 cases. The company will go to court if they can't settle at or below that figure. They will not go to court if they can settle for that amount.
BIBLIOGRAPHY

Books and Pamphlets


Periodicals and Articles


Unpublished Material

