A LABORATORY STUDY OF THE
LABOR-MANAGEMENT BARGAINING RELATIONSHIP

by

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ABSTRACT

The present study is intended as an alternative to the experimental game approach to the investigation of conflict. It explores a particular real-world conflict situation, the labor-management bargaining relationship, and is viewed as a transitional step between laboratory experimentation and research in natural settings.

Subjects were 34 male adults, 19 representing "Management" and 15 representing "Labor", all with formal bargaining experience in labor-management negotiations. A total of ten 3-hour sessions were conducted in which representatives of both parties participated in 3- and 4-person groups. The study was designed to provide information concerning ways in which representatives of each party (i) perceive the labor-management relationship, and (ii) approach negotiations.

Perceptual information was obtained by means of an opinion questionnaire which dealt with specific aspects of labor relations, and semantic differential-type scales. In addition to the descriptive information provided by these tools, it was found that: (1) labor representatives perceived more differences of opinion between "Labor" and "Management" than did management representatives; (2) the personal opinions of management representatives differed from the opinions they perceived "Management" in general to hold more frequently than the personal opinions of labor representatives differed from the opinions they perceived "Labor" in general to hold; (3) the personal opinions of labor representatives differed from the opinions they perceived "Management" in general to hold more frequently than the personal opinions of management representatives differed from the opinions they perceived "Labor" in general to hold;
(4) no differences existed between the labor sample and the management sample in terms of homogeneity of perception or in terms of homogeneity of personal opinion. The first finding is considered to reflect different values placed upon tension and conflict by "Labor" and "Management", while the second and third findings suggest a greater tendency for "Labor" to hold personal opinions which resemble a perceived "party line". An implication of the fourth finding is that if exogeneous "party lines" do exist, the "party line" adopted by "Labor" is no more well defined for labor representatives than any "Management party line" is for management representatives.

A potentially important observation involving misperceptions was the tendency for both labor and management representatives to think the other party perceived them in a less favorable manner than it actually did. This is regarded as one consequence of the roles prescribed for two parties in a conflict relationship.

Negotiating information was obtained from a formal analysis of the verbal content of simulated bargaining sessions. The bargaining problem employed in this study cast management representatives in the role of business partners and labor representatives as the elected officials representing employees of the business. The two parties were required to negotiate a wage settlement for the coming year on the basis of a projected wage and profit analysis adapted from the model of Sawyer's bargaining board. Findings are outlined in terms of the ways in which Labor and Management presented the position of their party on the wage issue, questioned the position taken by the other party, and dealt with questions and arguments from the other party. Those aspects of verbal
behavior reported include the relative emphasis given particular bargaining positions, the kinds of arguments presented and degree of determination with which supportive statements were expressed, the types of information exchanged, and the nature of threats and attacks made by each party. In addition to categorizing verbal statements made during "negotiations", emphasis was placed upon the relative frequency with which a particular kind of statement was made by Labor and Management.

Implications of the findings of this exploratory study and suggestions for future research are discussed.
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A LABORATORY STUDY OF THE
LABOR-MANAGEMENT BARGAINING RELATIONSHIP

Social relationships involving a conflict of interests or goals between two parties have been the subject of considerable research interest in the past decade. Particular attention has been given to a paradoxical kind of situation in which the two parties, each seeming to act in his own best interest, achieve an outcome which is considerably worse than if each had acted contrary to his interest. The traditional laboratory approach to investigating conflict situations of this nature is characterized by the use of the Prisoner's Dilemma and similar 2-person games. As an analog to conflict in the real world, the Dilemma is intrinsically attractive since it incorporates a number of intricate structural elements of real conflict relationships (e.g., interdependence, commonality of individual interests, dominance of alternatives) in an ostensibly simple choice behavior situation. However, aside from consistently demonstrating the detrimental nature of conflict, research employing the Prisoner's Dilemma has provided little insight into the kinds of processes and mechanisms underlying the development, sustaining, and resolution of conflict. As an alternative to the experimental game approach, this study deals with a particular real-world conflict situation, the labor-management bargaining relationship. The nature of the study reported here is exploratory rather than manipulative, with particular emphasis given to clarifying ways in which "Labor" and "Management" perceive the bargaining relationship, and isolating approaches to negotiations adopted by each party.

This thesis will be organized into five chapters. The first chapter includes a review of some classical naturalistic research as well as
conceptual and empirical evidence relating to the current status of non-laboratory experimentation in social psychology. In the second chapter, some limitations of the traditional game approach to conflict research will be discussed, and a conceptual basis for the present study will be presented. In Chapters Three and Four the study itself will be reported and discussed. Finally, in the fifth chapter, the results will be reviewed and the major conclusions and implications of the study for future research outlined.
CHAPTER ONE: HYPOTHESIS TESTING IN NATURAL SETTINGS

A. The Ring-McGuire Debate

In a recent exchange of articles, Kenneth Ring and William McGuire assessed some of the values and goals of social psychology. Ring (1967) examined the extent to which social psychologists are currently guided by a humanistic, action-oriented view of the field. Historically, he attributes this view to Lewin, who believed it possible for a discipline of social psychology not only to further the scientific understanding of man, but also to advance the cause of human welfare at the same time. In concluding that this is no longer a dominant conception of social psychology, he argues that present values favor a basic, theory-oriented discipline which is pervaded by a frivolous "fun-and-games" approach to research. In Ring's opinion these values are to a large extent responsible for a state of intellectual disarray in social psychology, and he considers that the long-run effect of a "fun-and-games" research tradition will be detrimental.

Expressing concern for the training of graduate students, Ring cites two general implications of a social psychology which appears to be mainly a matter of style rather than substance. On the one hand, he predicts that some students will lose interest in a discipline that is perceived to be either too trivial or tightly experimental. On the other hand, those students who remain should come to share and perpetuate the same frivolous values which caused their colleagues to leave. According to these values a considerable number of good students can be expected to pursue disciplines other than social psychology. For essentially pragmatic reasons then, Ring urges social psychologists to take stock of where the field is heading and to reconsider the values of an action-oriented, or applied approach.
Commenting on some of the issues raised by Ring, McGuire (1967) indicated that he too recognizes the widening gap between basic and applied research trends. Although he agrees that these trends have resulted in an undesirable overemphasis on basic, theory-oriented research, he considers the "fun-and-games" situation to be a much less desperate one than does Ring. Accordingly, McGuire does not deal at length with the fun-and-gamesmen, preferring instead to comment on what he considers are "some impending reorientations in social psychology."

The main point of disagreement between Ring and McGuire stems from the former's apparent expectation that the separation of the two streams of research and overemphasis on basic research show signs of being continued and even accentuated in the foreseeable future in social psychology. McGuire argues that social psychology is moving towards a "best of both worlds" solution in which theory-oriented research will be done in natural settings. A number of technological factors and social trends are considered responsible for making this kind of research both feasible and desirable. Among these McGuire sees the availability of sophisticated computer programs for dealing with the kinds of methodological and statistical problems that arise in the "dirty" real world, access to "caravan"-type nation wide surveys, the increasing availability of data archives relevant to the social sciences, the current upsurge in concern about social affairs brought about by the Vietnam war, human rights issues, etc., and a government interest in the payoffs associated with sizeable research grants. In addition he cites a number of negative factors associated with prevailing problems of laboratory research. These include the kind of artifacts to which Rosenthal, Orne and others have drawn
attention, and the serious ethical questions raised by the use of noxious conditions, deceptive manipulations, invasion of privacy, etc.

While McGuire concludes that redeployment into the natural environment will be only partial, that the bulk of social psychological research will remain in the laboratory, he urges the utilization and teaching of techniques designed to take advantage of research possibilities in natural settings.

B. Approaches to Naturalistic Experimentation

Although it is too early to assess whether or not McGuire's "best of both worlds" prediction will be realized, there exist in the social psychological literature certain historical precedents for research in natural settings. Such studies appear to have taken one of three distinct approaches to the collection of data. The first strategy sees the experimenter taking advantage of a more or less naturally occurring event in order to test particular hypotheses or to analyze what is happening, while the second involves hypothesis-testing in a commonly occurring "everyday" situation. In the first approach, an event takes place having consequences which can be considered social psychological, and should the experimenter not have his tools of investigation ready, he attempts to prepare them, and if possible, formulate testable hypotheses, since the event is just too appealing to leave academically unexploited. This differs from the second approach in that in this instance, while the experimenter is armed with particular hypotheses, he is required to seek out or specify from among a number of naturally occurring events the one which is an appropriate vehicle for testing of these hypotheses. In the third approach, the

1An event which the experimenter was in no way instrumental in causing to happen.
experimenter manipulates a part of the natural environment in order to determine the effect of the manipulation on the behavior of his subjects (those persons who, in the natural course of events, enter the altered environment created by the experimenter). The difference between this approach and the previous two is in terms of the element of environmental control which is introduced into the natural situation in which the hypothesis is tested.

Two classical examples of the first approach are Cantril's (1940) survey of mass behavior in the panic situation resulting from Orson Welles' *War of the Worlds* broadcast, and a study by Festinger et al. (1956) of cognitive dissonance and social support in a small group anticipating the end of the world. More recent examples of this kind of research include studies of birth order effects during the 1965 New York City power failure (Zucker et al., 1968), communication of emotion following the assassination of Dr. Martin Luther King (Sawyer, 1968), as well as the anticipated reports of research conducted during the much publicized 1969 California earthquake mania.

Examples of the second approach\(^2\) can be found in the dissonance literature, among the original series of experiments conducted by Festinger (1957) involving selective exposure to newspaper advertisements, and in a recent study by Knox and Inkster (1968). In the latter experiment the authors compared confidence estimates made by pre- and post-bet subjects at the $2.00 WIN window of a race track. It is worth noting that

\(^2\)Techniques of data collection which might be considered the ultimate refinement of this approach appear in a book by Webb et al. (1966), entitled *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. 
in this instance results, consistent with dissonance theory, were obtained without the use of cumbersome, deceptive, and ethically questionable manipulations that often characterize laboratory-bound dissonance research. Other recent examples of this approach include two studies generated by Schachter's series of laboratory demonstrations that eating is motivated by different stimuli in normal and obese individuals. Here Goldman et al. (1968) studied eating behavior in a variety of non-laboratory situations including religious fasting, institutional food tolerance, and changing time zone effects, while Nisbett and Kanouse (1968) observed the effects of obesity and hunger on supermarket shopping behavior.

One of the earliest examples of the third approach is La Piere's (1934) study of actual discrimination and verbal discrimination. The investigator travelled widely in the United States with a Chinese couple, stopping at various sleeping and eating places. He compared the incidence of refusals of service in these places with replies to questionnaires sent to the proprietors asking whether they would take "members of the Chinese race as guests in your establishment." Similar naturalistic studies of prejudice have been conducted by Kutner et al. (1952) and Wax (1948); the former experiment involved visits by racially mixed groups to restaurants and taverns in a fashionable New York suburb, while in the latter hotel and resort managers received mailed requests for accommodation signed with names suggesting membership in particular ethnic groups. Some of the recent field experimentation of this type has concentrated on what can be termed "helping behavior". Among these are Feldman's studies (1968a, b) of treatment of foreign and compatriot strangers by members of different geographic populations in a variety of social contexts, studies by Ryan
and Test (1967) and Hornstein et al. (1968) of the influence of social
models on helping in naturalistic situations, as well as Milgram's (1965)
lost letter technique.

This brief survey is not intended as a review of naturalistic
experimentation in social psychology, a purpose for which it would
certainly be inadequate, but rather as an acknowledgment that this kind
of experimentation is more than just a recent phenomenon. The classic
examples cited above affirm this fact. In addition, the recent experiments
included here are examples of research which appears to typify the in­
creasing incidence of studies which provide both the basis and potential
validation for McGuire's arguments.

C. Summary

A cursory review of the Psychological Abstracts for the past decade
is sufficient to establish that social psychology is a theory-oriented and
laboratory-based discipline. Recently some social psychologists have
questioned the values and goals of such a discipline with Ring in particular
urging his colleagues to devote less attention to basic research and to re­
consider the kind of humanistic, action-oriented approach to the field
adopted by Lewin. Commenting on Ring's remarks, McGuire, a proponent of
theory-oriented laboratory research, contends that the emphasis on basic
research is waning and that the gap between basic and applied research
trends is likely to be narrowed in the near future. In addition, McGuire
foresees certain reorientations in social psychology which are likely to
facilitate theory-oriented research in natural settings. In this regard
there are a number of historical precedents for this kind of research as
well as an increasing number of recent experiments designed to take
advantage of the natural environment for the testing of hypotheses. The present chapter included a review of Ring's plea against a strictly laboratory-based, theory-oriented approach to research, McGuire's contention of impending redeployment into natural settings, and certain historical as well as recent examples of hypothesis-testing in natural settings. In sum, one could argue rather strongly that there currently exists in social psychology a demand and climate of readiness, as well as historical precedence, for naturalistic experimentation.
CHAPTER TWO: THE LABORATORY STUDY OF INTERPERSONAL CONFLICT

Some of the experiments cited in the previous chapter were conducted in natural settings because this was the obvious place, if not the only place, to conduct these experiments. Others were designed to provide additional, but not critical, evidence relevant to particular theoretical interpretations which have already received considerable attention in the laboratory. However, very few investigations have exploited the natural environment as a necessary alternative to laboratory study. Consequently, certain problems which have habitually been studied in the social psychological laboratory appear destined to remain in the laboratory even though more meaningful research possibilities could present themselves with redeployment into the real world. One such problem is the study of social negotiations where there exists some conflict of interests or goals between two parties, a subject which has traditionally been pursued with the use of gaming and modified gaming techniques. In this chapter it will be argued that the experimental game, in particular the Prisoner's Dilemma game, has not been a fruitful tool for the study of conflict in social negotiations. An alternative approach, adopted by the present study as a useful transitional step between the manipulational laboratory experiment and natural setting research, will be outlined.

A. Laboratory Game Investigations of Conflict: Some Problems

Although the literature on experimental games has expanded considerably in recent years, it remains plagued by two rather general problems. One of these stems from the influence of the original theory of games which assumes that a person acts rationally in order to maximize gain and minimize loss (Von Neumann and Morgenstern, 1944, pp. 8-9). When this
premise is considered it is difficult to understand why the levels of cooperation found in most Prisoner's Dilemma studies are as low as they are. The other difficulty involves the fact that ten years of gaming research has provided little definitive insight into real-life conflicts and their resolution. Recently both Vinacke (1969) and Gallo (1968) have addressed themselves to these problems.

In a survey of experimental game research Vinacke isolates three types of variables that have traditionally been manipulated: task variables such as matrix entries, mode of presentation, and number of trials; situational variables such as feedback, opportunity for communication, and strategy of opponent; and personality variables such as family background, psychopathology, and attitudes. In addition to citing a number of methodological difficulties inherent in manipulating these variables, he discusses what he considers to be the theoretical shortcomings of approaches based primarily on task and situational variables as opposed to approaches based on personality variables. He contends that neither the assumption implicit in the task and situational approaches, that persons behave in a wholly rational manner, nor the assumption implicit in the personality approach, that persons are wholly guided by antecedent intrinsic interests, is adequate to account for behavior in experimental gaming situations\(^3\). As an alternative, Vinacke argues for a Lewinian field theory approach which will enable researchers to look at the interaction between person and environment in order to identify variables from both directions and determine how they

\(^3\)While this contention may appear trivial, it is necessary since the notion that behavior is a function of one of these variables to the exclusion of the others is inherent in a majority of gaming reports.
are related in producing behavior. In this regard he states,

It is grossly artificial to believe that subjects can be treated as if they are all alike. It is equally artificial to eliminate variations in the situations where behavior takes place. Thus, emphasis needs to be placed on the interpretation of interactions between the forces that can meaningfully be measured in both person and situation. . . . Putting it another way, suppose that our practical objective is to achieve agreements which the parties in question will both accept. Let us begin with a specification of the outcome desired and explore the conditions required to reach it. This means a process of putting together in meaningful combinations variables in all three of the classes I have described. The aim is not to ascertain the level of cooperation attained under a certain experimental manipulation nor to compare groups of subjects. Rather the aim is to decide that cooperation (or some other outcome) is the intended outcome, and then to find out how it can be achieved.


Gallo, on the other hand, contends that much of the current difficulty with gaming research is due to the fact that we have thus far not been able to develop a set of conceptual tools that allows us to analyze the nature of conflict situations. He notes that,

. . . an analysis of the nature of conflict situations must begin with a recognition of the fact that there are at least two classes of payoffs at stake in every conflict—the tangible payoffs and the intangible or symbolic payoffs. The tangible outcomes hardly need definition—they consist of the material resources under consideration, whether it be expressed in terms of money, fringe benefits, control of land, etc. The symbolic payoffs, on the other hand, are related to the needs of the conflicting parties for maintaining face, self respect, prestige, honor, status vis-a-vis one another and also vis-a-vis any third parties that may be observing the conflict.

(Gallo, 1968, p. 2).

In the gaming situation the outcome depends very much upon whether a subject attempts to achieve a tangible or an intangible payoff. Accordingly, Gallo argues that a relative increase in the value of the tangible payoffs should expedite conflict resolution, while a relative increase in the value
of the symbolic payoffs should decrease the possibility of conflict resolution.

While both Vinacke and Gallo are aware of the kinds of problems that should concern researchers using gaming situations as analogs to real-world conflict, the solution that each offers is less than comforting. Both solutions are, in their present forms at least, conceptual rather than operational in nature, although Gallo does cite certain experimental evidence in support of his analysis of the effects of available payoffs. The kinds of manipulations and measurements that can be meaningfully imposed by the field approach which Vinacke advocates remain to be determined as does the method of scaling the symbolic rewards discussed by Gallo. In addition, should these operational difficulties be overcome, the kinds of laboratory situations that Vinacke proposes to structure for the study of conflict and conflict resolution may have no counterpart in the real world. Similarly, situations in which the relative values of tangible and symbolic payoffs are allowed to vary to an extent necessary to either expedite or forestall conflict resolution may be uncommon in the real world.

Other difficulties arise if we consider two approaches to gaming research which these authors have either not dealt with, or at best, have dealt with in a very cursory manner. Implicit in one series of investigations is the idea that behavior in experimental gaming situations is of interest in its own right and whether or not the situation or the behavior is representative of real-world situations or behaviors is inconsequential. Here attention is directed toward isolating motives (Messick and Thorngate, 1967; Messick and McClintock, 1968), determining effects of various matrix entries (Rapoport and Chammah, 1965), etc. What is particularly interesting
about this research is the inherent notion that the game situation is in itself a unique environment in which social behavior can be profitably studied. Thus, rather than asking how a subject's behavior in the game approximates his behavior in the real world, the experimenter asks how does a subject from the real world behave in the game. In contrast, research by a second group of investigators is aimed at clarifying the relevance of gaming situations to the real world. Since interest here has been focussed on the effects of low motivation and poor understanding by subjects in game experiments, the two most frequently manipulated variables have been the size of payoffs and extensiveness of instructions. A number of researchers have found that as the size of monetary payoffs is increased, the level of cooperation also increases (Gallo, 1963; Radlow, 1965; McClintock and McNeel, 1966a, b, 1967), and this is the kind of evidence on which Gallo bases his argument concerning the relationship between tangible payoffs, symbolic payoffs, and cooperative behavior. However, the fact that other researchers find no differences in levels of cooperation between real and imaginary money conditions (Willis and Joseph, 1969; Vinacke, 1966; Wrightsman, 1966), and between high and low money conditions (Knox and Douglas, 1968) suggests that the relationship between tangible and symbolic payoffs is not as straightforward as Gallo implies. Similar inconsistencies appear among the findings of researchers expressing concern about their subjects' level of comprehension in gaming experiments. Using more explicit instructions than those traditionally employed, both Wrightsman et al. (1968) and Messé and Sawyer (1966)

4In a recent study by Gumpert et al. (1969), subjects playing for real dollars were significantly less cooperative than those playing for imaginary dollars.
report increased levels of cooperation, while Knox and Douglas (1968) observed no such increase. It is not clear, then, just what aspect of the more extensive instructions employed in the former studies mediates the effect on cooperation.

Although the evidence cited above is not the basis of a strong argument that the study of gaming conflict is irrelevant to an understanding of conflict in the real world, it does introduce some uncertainty concerning the generalizability of game behavior. Especially pertinent to this problem of generalizability are the results of the investigation by Knox and Douglas (1968) in which both payoffs and instructions were varied in a simple $2 \times 2$ factorial design. These authors found no change in the level of cooperation in a Prisoner's Dilemma game when the traditional penny rewards were replaced by dollar rewards, or when the customary instructions were replaced by more rigorous instructions, or when both of these conditions were introduced together. However, they did observe an ordered increase in variances from the traditional instruction-penny payoff condition to the rigorous instruction-dollar payoff condition which was interpreted as true score rather than error variance. A conservative statement concerning the problem of generalizing from gaming to real world behavior follows from this finding: irrespective of what is really being assessed when a gaming situation is employed, that assessment will be more reliable when both motivation and comprehension are at a high level. Because both motivation and comprehension appear to have been at a relatively low level in a majority of studies, the traditional game situation is probably a poor analog to most real-world conflict situations. Consequently, now might be an appropriate time to suspend research which
employs games to clarify behavior in real-world conflict situations, and to deal seriously with the problem of whether or not games can be profitably used as analogs to actual conflict situations. Hopefully then, the current status of gaming research will force a reappraisal of the goals and methods of this kind of research, while at the same time providing the impetus for studies designed to take advantage of natural settings for the study of conflict. The remainder of this chapter will be devoted to outlining a laboratory study viewed by the author as a desirable and appropriate initial step to clarifying the nature of real-world conflict and its resolution.

B. Labor-Management Negotiations: A Research Viewpoint

One situation which game theorists frequently cite as a real-world analog to the dilemma posed in the basic gaming situation is the labor-management bargaining relationship. Although the aptness of this analogy is questionable, this relationship does appear to offer workable research possibilities since most labor disputes gravitate toward tangible resolution within days, weeks, or months. Hence, because solutions do appear, and because these can be achieved within a relatively short time span, the behavioral elements that contribute to solutions should be open to study.

In attempting to isolate some of the factors which expedite as well as forestall resolution of labor-management conflict, the situation will be considered from a viewpoint which emphasizes psychological rather than economic factors. In this regard, there appears to be two major contract terms at issue in the bargaining process: these are the wages to be paid to particular employees, and a variety of additional considerations in-
cluded under the heading of "fringe benefits". It is the author's contention that in most contract negotiations the settlement wage and a majority of the fringe benefits are determined by certain economic realities. These include such factors as the national and regional economic outlook, market position of the company in an industry, wages paid within the industry or in comparable industries, changes in cost of living, etc., as opposed to psychological factors such as the attitudes and opinions of the participants in negotiations, the unique ways in which they perceive their own goals and the goals of the other party, the kinds of bargaining tactics each employs, etc.  

In terms of this interpretation then, the present viewpoint can be expressed by the following postulate: tangible or economic terms of the contract settlement are relatively invariable, while intangible or psychological factors vary to determine the amount of time required to

5Although it is argued here that the same kind of economic realities that determine wage rates influence to a considerable extent the types of fringe benefits demanded and conceded, it should be recognized that certain fringe benefits allow a curious mixture of economic and psychological factors to come into play. Consider the number of labor disputes in which settlement is forestalled by such issues as the provision of an extra meal for loggers on early morning shifts (Port Alberni, British Columbia, International Woodworkers of America, 1969), provision of transportation for mailmen to postal stations for lunch breaks (Letter Carriers' Union of Canada, 1968), etc. In addition to their economic value, these kinds of issues appear to have a definite psychological value in the sense of extraction or denial of "moral" victories. Thus, it could be argued that on some points the actual economic terms of the contract are influenced by psychological factors. However, since it is felt that this particular kind of fringe benefit contributes in a very minor way to the economic terms of the contract, and due to the difficulties inherent in operationalizing the role of any fringe benefits in a formal experiment, the present study will deal both theoretically and empirically with the process of wage settlement exclusive of fringe benefits.
reach the present settlement and the climate of the subsequent working and bargaining relationship. More specifically, it is contended that in many contract negotiations, both "Labor" and "Management" can estimate fairly accurately just what the settlement wage and most attendant fringe benefits will be prior to the opening round of negotiations. This estimate is determined by economic realities and is subject to very little revision during the course of the negotiations. What remains to be determined is not the actual wage, but rather how long it will take the two parties to agree upon this wage and the costs that will be invoked by the expenditure of this time. These factors in turn will influence the level of satisfaction which the parties derive from the negotiations which will in large part determine the climate of their future relationship. Thus, while conflict resolution inevitably appears at the contract level, the extent to which it is present on a psychological level would appear to depend very much upon such factors as attitudes, opinions, needs, and tactics of the parties concerned. This is a strong statement of this particular position and as such it may appear that the contribution of economic determinants of conflict resolution has been greatly underestimated. This is not an impression that the author has deliberately attempted to create. The intent is simply to emphasize the important role of psychological factors in the resolution of a particular kind of conflict. These factors are

6In order to facilitate the distinction between general and specific references to these two parties, the following convention is adopted in this paper: when referring to labor and management in general, the referents "Labor" and "Management" are used; when referring to those particular subjects who participated in the present study, the referents used are Labor and Management (not quoted), or labor representatives and management representatives.
considered important because they are free to vary to an extent that economic factors are not, and in so doing innumerable possibilities for initiating, sustaining, and resolving conflict are created.

Because viable techniques for the laboratory study of the kind of conflict referred to here have not yet been developed, research in the real world becomes a necessary alternative to traditional laboratory investigation. However, the present lack of understanding of conflict and its resolution in general, as well as an unfamiliarity with social psychological aspects of the labor-management relationship in particular, suggest than an initial transitional step between the laboratory and natural setting is appropriate. The approach taken by the present study is to observe persons who are involved in actual real-world conflicts in a laboratory setting. An attempt will be made to acquire information concerning a specific real-world conflict situation and the protagonists by requesting the presence of experienced labor and management negotiators in a laboratory. "study". The major purpose is to obtain information of a descriptive nature concerning the labor-management relationship and to generate hypotheses pertinent to conflict resolution for subsequent testing in both the laboratory and natural setting. At the same time certain formal hypotheses pertaining to the labor-management relationship can be tested. The study itself involves 3-hour sessions in which both labor and management representatives complete questionnaires and interact in small bargaining units. The data collected are intended to provide answers, or at least partial answers, to the following kinds of questions about "Labor" and "Management" as distinct parties in a bargaining relationship:

(1) What are the attitudes, opinions, bargaining goals, intentions,
and positions that a labor or management representative perceives his own party to hold?

(ii) What are the attitudes . . . etc., that a labor or management representative perceives the other party to hold?

(iii) What are the attitudes . . . etc., that a labor or management representative personally holds?

(iv) How accurate are labor and management representatives in assessing the attitudes . . . etc., held by particular other participants in the bargaining relationship?

(v) What are some of the particular issues of agreement and disagreement between the parties as perceived by representatives of those parties?

(vi) How do labor and management representatives think their own party is perceived by members of the other party?

(vii) What kinds of bargaining tactics are employed by each party?

In addition to obtaining this kind of descriptive information, five hypotheses will be tested. These hypotheses and attendant logic will now be presented.

In the recent history of labor-management relationships, "Management" in general seems to have shown a greater concern than "Labor" for alleviating states of tension and conflict between the two parties. On the other hand, "Labor" in general seems to have shown a greater concern for maintaining these states, at least at some level. This observation appears particularly valid with respect to labor relations
not surprising in that tension and conflict are likely to endanger production, and in so doing provide a basis of bargaining power for "Labor". Whether or not a party is able to deal with these states is unimportant with regard to the hypothesis presented here. What is important is the observation that the behavior of "Labor" suggests that they view tension and conflict as states which are potentially beneficial to the attainment of their goals, whereas the behavior of "Management" suggests that they view tension and conflict as states which are potentially detrimental to the attainment of their goals. Because differences, actual or perceived, between two parties provide a basis for tension and conflict, it is hypothesized that "Labor" will prefer to emphasize areas of disagreement between "Labor" and "Management", while "Management" will prefer to emphasize areas of agreement between "Labor" and "Management". More specifically, it is hypothesized (1) that issues on which the two parties are perceived to hold differing opinions, attitudes, or positions will be seen more frequently by labor representatives. Conversely, issues on

in the province of British Columbia. For example, legislation, the ultimate goal of which is to calm troubled labor relations, is vehemently opposed by "Labor", post settlement statements of a "we won" nature have become standard comments of union representatives, and formal committees and groups actively opposed to the Vietnam war, poverty, tenant exploitation, etc.—conditions which "Management" can be perceived to play a leading role in perpetuating—are traditionally sponsored and supported by labor affiliates. On the other hand, labor legislation receives either scant or approving comment from "Management". Post settlement "no comments" or statements of satisfaction with the equitable outcome of negotiations are frequently made by management representatives, and formal associations and clubs whose goals include improvement of employer-employee relations (i.e., industrial relations associations, staff relations departments, public relations departments, etc.) are most commonly formed by "Management".
which the two parties are perceived to share a common opinion, attitude, or position will be seen more frequently by management representatives.\(^8\)

Three additional predictions follow from the first hypothesis. The extent to which organized "Labor" is successful in maintaining at least some level of tension and conflict will depend upon a capacity for perpetuating among individual representations perceptions of differing opinions between "Labor" and "Management". In this regard one important tactic often employed by "Labor" involves an attempt to present to "Management" the image of a united labor front which is in support of their demands. This tactic does not appear to have gained the same degree of prominence on the part of "Management", likely due both to a lack of necessity for adopting such a tactic as well as to the organizational diversity of managements relative to "Labor". For both functional and structural reasons then, it can be argued that the inculcation and presentation of a "party line" is a more salient tactic for "Labor" than it is for "Management". Consequently, it is hypothesized (2) that the personal opinions of management representatives will differ from the opinions they perceive their own party to hold more frequently than the personal opinions of labor representatives will differ from the opinions they perceive their own party to hold. In addition it is hypothesized (3) that labor representatives will see more issues on which their personal opinions differ from the opinions they perceive the other party to hold than will management representatives. This third hypothesis resembles

\(^8\)For purposes of brevity, in subsequent references to the "opinions, attitudes, or positions" of a party, only the term "opinions" will be used.
the first hypothesis except that here perception of the opinion held by one's own party is replaced by one's own personal opinion. Finally, it is hypothesized (4) that labor representatives will be more homogeneous in the perception of their own party's opinions, in the perception of the other party's opinions, and in their own personal opinions, than management representatives will be.

In the course of contract negotiations both "Labor" and "Management" have prescribed roles which they are expected to assume. Inherent in these roles is the adoption of particular attitudes and tactics with respect to the other party, which include one-sided statements of positions, unrealistic opening offers and demands, threats, etc. One effect of this is to create an impression of hostility which is sometimes more a matter of show than actual inclination. Consequently, it is hypothesized (5) that both parties will exhibit a tendency to think that the other party perceives them in a less favorable manner than it actually does.

While these hypotheses will be defined in operational terms in the following chapter, some additional comments on the predictions made by the first four hypotheses appear warranted at this point. The prediction made by the first hypothesis, that issues on which the two parties are perceived to hold differing opinions will be seen more frequently by labor representatives than by management representatives, is based upon a behavioral observation which suggests that "Labor" and "Management" value tension and conflict quite differently. Inherent in this prediction is the idea that the nature of the bargaining relationship predisposes the two parties to perceive relevant issues in somewhat different ways. Similarly, the nature of the bargaining relationship should predispose
the two parties to adopt, to some extent at least, somewhat different tactics to attain their goals. If what we have termed the "party line" strategy is a more important tactic for "Labor" than for "Management" then the predictions made by the second, third, and fourth hypotheses should follow from the first hypothesis. If labor representatives see more issues on which the two parties are perceived to hold differing opinions, and if the "party line" strategy is a more important tactic for "Labor", then labor representatives should, to a greater extent than management representatives, hold personal opinions like those they perceive their own party to hold (second hypothesis), hold personal opinions that differ from the opinions that they perceive the other party to hold (third hypothesis), and be alike in their perception of the opinions held by their own party, the opinions held by the other party, and in their personal opinions (fourth hypothesis).

C. Summary

In the present chapter it has been argued that research based upon the traditional laboratory gaming paradigm has not provided sufficient insight into real-life conflicts and their resolution to justify the continued use of games as a means to this end. Arguments by two prominent game researchers for the continued use of gaming techniques within new conceptual frameworks, one focussing on the potential interaction between a broad range of independent variables and the other on a unique conception of the payoff structure inherent in game situations, were reviewed. It was concluded that while both Vinacke and Gallo are aware of the problems that currently plague gaming research, the solution that each offers is inadequate. Consequently, it was suggested that now is an appropriate time to suspend
that research which employs games to clarify behavior in real-world conflict situations, and to deal with the problem of whether or not games can be profitably used as analogs to actual conflict situations. If they can be so employed, then the modifications that must be made to the traditional approach will have to be explicitly defined.

The remainder of the chapter was devoted to outlining a laboratory study which is considered to be an appropriate initial step to clarifying the nature of conflict and its resolution in the real world. This involves observing in the laboratory persons who are active in a particular real-world conflict situation, the labor-management bargaining relationship, an approach which is viewed as a necessary initial step in bridging the gap between the laboratory and natural setting as research environments. The major objectives include the obtaining of information of a descriptive nature concerning the labor-management relationship and the generation of hypotheses pertinent to conflict resolution for subsequent testing in both the laboratory and natural setting. In addition, five hypotheses dealing with perceptual aspects of the bargaining relationship were presented.
CHAPTER THREE: METHOD

The present study was not one in which variables were manipulated across conditions, but rather was intended as a vehicle for collecting descriptive information concerning social psychological aspects of the labor-management bargaining relationship. The primary objective was to collect as much pertinent data as possible during a short period of time and for this reason the procedure tends to be somewhat segmented among three kinds of tasks. These tasks included questionnaires and rating scales dealing with personal opinions as well as perception of the opinions of others, a Prisoner's Dilemma-type game, and a simulated bargaining problem. In this chapter the structure of the groups and sequence of events will be outlined, and descriptions of the tasks and their mode of administration given. In addition, the hypotheses will be defined in operational terms.

A. Subjects

Subjects were 34 male adults with formal bargaining experience in labor-management negotiations in the greater Vancouver business-industrial area. Nineteen of the subjects were management representatives from personnel and labor relations departments of such industries and services as Weldwood of Canada, Gulf Oil, British Columbia Hydro and Power

A Prisoner's Dilemma-type game with postage stamp payoffs was employed in the present study. Due to difficulties in simultaneous scheduling of two labor and two management representatives in some experimental sessions, subjects could not be run in all of the conditions originally planned; in addition, many subjects indicated only a cursory understanding of the mechanics of choice and payoff contingencies. Since these two factors precluded any meaningful treatment of the data, this part of the experiment was excluded from subsequent analysis and the Prisoner's Dilemma game will not be discussed in this report.
Authority, and Vancouver City Hall. The remaining subjects were representatives of various union locals and councils which included the Teamsters, Canadian Union of Public Employees, Letter Carriers' Union of Canada, Vancouver and District Labor Council, and so on.

B. Procedure

It was initially proposed that ten sessions be conducted, with two management representatives and two labor representatives participating in each session. Due to difficulties in the simultaneous scheduling of four subjects who also had negotiations to conduct and other commitments in the real world, these ten sessions were comprised of four sessions in which two labor and two management representatives participated, five sessions in which one labor and two management representatives participated, and one session in which two labor and one management representative participated. In order to standardize conditions, and as a courtesy to the subjects, the following restrictions were placed on the structure of the groups:

(i) Management representatives from the same company or industry did not appear together in any one session.

(ii) Labor representatives from the same union or industry did not appear together in any one session.

(iii) Representatives from specific industry and labor that were known to have been in the past, or were considered likely to be in

10 It was felt that subjects would be more candid and at ease knowing that their behavior was not being observed by immediate superiors, close colleagues, or particular bargaining "adversaries". At the same time, adherence to these contingencies introduced a greater degree of homogeneity among the groups.
the near future, involved in contract negotiations with each other, did not appear together in any one session.

At the beginning of each session the subjects were seated around a central table in a 15 by 30 foot room and introduced to each other, given a brief verbal outline of the kinds of tasks upon which they would be working during the session, and assured that the data would not be attached to individuals by name, but rather to "Labor" and "Management" as groups. In addition, each subject was given a lapel tag with his name and a coded designation, L1 and L2 for labor representatives, M1 and M2 for management representatives. A session lasted approximately three hours and the sequence of events was as follows:

1. first administration of the Opinion Questionnaire
2. administration of Semantic Differential-type scales
3. administration of the F-scale
4. Prisoner's Dilemma game
5. bargaining session
6. administration of a satisfaction with settlement scale
7. second administration of the Opinion Questionnaire.

**Opinion Questionnaire:** The Opinion Questionnaire (Appendix A) consisted of 25 statements concerning labor relations with which a subject might agree or disagree. Twenty-one of these statements referred to labor relations in general. A few examples of these items are: "In contract negotiations, one should seek to acquire every possible advantage over the other party.""; "Unrealistic opening offers and demands are an essential part of the bargaining process."; "Persons who think a state of mutual trust can be established between labor and management are being
unrealistic.". The remaining four items were specific to labor relations in the province of British Columbia\(^{11}\). Examples of these items include: "I think that a frank interchange of ideas between local labor leaders and top management personnel could alleviate much of the tension that exists in industrial relations today."; "The provincial labor laws favor management.".

Following the experimenter's introductory remarks, the subjects were seated at individual tables in the room and were given the first administration of the Opinion Questionnaire. They were informed by the experimenter that each of the questionnaire items was a statement of opinion about a particular aspect of labor relations, and a subject was required to make two judgments on each of these items. He was asked to indicate whether he thought "Labor" (in general) in the province of British Columbia would tend to agree or disagree with the statement, and whether he thought "Management" (in general) in the province of British Columbia would tend to agree or disagree with the statement. Indications were made by placing an L, for "Labor", and an M, for "Management", in either the column headed AGREE or in the column headed DISAGREE.

In operational terms the first hypothesis predicts that items on which "Labor" and "Management" are perceived to hold differing opinions will appear significantly more frequently in the responses of labor

\(^{11}\)During the period in which data were collected, two officers of the United Fishermen and Allied Worker's Union were released from prison after serving portions of sentences imposed for defying an injunction. As a result, questionnaire item no. 7, which read, "Those officials of the Fishermen and Allied Worker's Union now serving prison terms should be released immediately.", was eliminated from the analysis. Subsequent analysis of the questionnaire responses was based on the remaining 24 items.
representatives (conversely, items on which "Labor" and "Management" are perceived to share the same opinion will appear significantly more frequently in the responses of management representatives). In other words, it was predicted that labor representatives would indicate more statements on which one party was perceived to agree and the other perceived to disagree than would management representatives. (Conversely, management representatives would indicate more statements with which the two parties were perceived to either both agree or both disagree than would labor representatives.) Consider the item, "Sometimes the real needs of the worker are overlooked by the union officials who represent him." A labor representative might be expected to perceive "Labor" as disagreeing and "Management" as agreeing with this statement, while a management representative might be expected to perceive "Labor" and "Management" as both agreeing (or both disagreeing) with the statement. While this can be considered as an example of the kind of prediction that is made by the first hypothesis, it should be noted that predictions are not made with reference to particular items. Instead, it is predicted that there will exist a tendency for labor and management representatives to perceive the opinions of the two parties in different ways over all of the items. Specifically, labor representatives should perceive more differences of opinion between the two parties than would management representatives.

At the end of the session, following the bargaining task, subjects completed the second administration of the Opinion Questionnaire. They were informed by the experimenter that these were the same items on which they had made judgments at the beginning of the session, but that on this administration the procedure would be different. A subject was instructed
to make four judgments (three judgments if only three subjects were present in the group) on each item. He was asked to indicate whether he personally agreed or disagreed with each statement, and to indicate how he thought each of the other subjects would respond to the items. Indications were made by placing an S for self in either the column headed AGREE or in the column headed DISAGREE. Indications of how a subject thought the others would respond were made with an M or an L for one's colleague, and an M1 and M2, or L1 and L2 for representatives of the other party.

The second and third hypotheses require comparisons between the subjects' responses on the initial administration and this final administration of the questionnaire.

In operational terms the second hypothesis predicts that items on which one's personal opinion (indicated on the final administration of the questionnaire) differs from the opinion that one perceives his own party to hold (indicated on the initial administration of the questionnaire) will appear significantly more frequently in the responses of management representatives than in the responses of labor representatives. (Conversely, items on which one's personal opinion is the same as the opinion that one perceives his own party to hold will appear significantly more frequently in the responses of labor representatives than in the responses of management representatives.)

In operational terms the third hypothesis predicts that items on which one's personal opinion differs from the opinion that one perceives the other party to hold (indicated on the initial administration of the questionnaire) will appear significantly more frequently in the responses
of labor representatives than in the responses of management representatives. (Conversely, items on which one's personal opinion is the same as the opinion that one perceives the other party to hold will appear significantly more frequently in the responses of management representatives than in the responses of labor representatives.)

The fourth hypothesis makes three predictions. In operational terms these are: (a) over all questionnaire items, the percentage of labor representatives indicating a common perception of "Labor's" opinions will be significantly greater than the percentage of management representatives indicating a common perception of "Management's" opinions; (b) over all questionnaire items, the percentage of labor representatives indicating a common perception of "Management's" opinions will be significantly greater than the percentage of management representatives indicating a common perception of "Labor's" opinions; and, (c) over all questionnaire items, the percentage of labor representatives indicating a common personal opinion will be significantly greater than the percentage of management representatives indicating a common personal opinion. In other words, both homogeneity of perception and homogeneity of opinion by labor representatives will be greater than by management representatives.\(^{12}\)

**Scales:** One 7-point rating scale (Appendix B) required semantic differential-type ratings on the following six dimensions: good-bad, trusting-suspicious, strong-weak, honest-dishonest, trustworthy-

\(^{12}\)Although 15 labor representatives took part in the study, one subject arrived too late to participate in that part of the session which involved the collection of perceptual data. For this reason the labor n is 14 here rather than 15.
untrustworthy, cooperative-competitive\textsuperscript{13}. This scale was administered three times in succession, and the experimenter read the following instructions to the subjects on these administrations:

\textbf{first administration} The two labor people have a sheet with "Labor" printed at the top and the two management people have exactly the same sheet except that "Management" is printed at the top. You labor people are to consider the term "Labor", whatever that means to you. Is "Labor" bad or is it good? If it is extremely bad put a tick mark at -3 of the top scale. If it is extremely good, put a tick mark at +3. If it is neutral, put a tick mark at zero. If "Labor" is better than neutral, but not extremely good, your tick mark should go somewhere between zero and +3 at a point that reflects just how good you think "Labor" is. You management people do the same thing for the concept of "Management". Extremely bad, tick at -3, extremely good, tick at +3. Or place your tick somewhere in between. Follow the same procedure for each of the separate scales. Labor people rate "Labor" on the "trusting-suspicious" scale, "strong-weak" scale and so on. Management people rate "Management".

\textbf{second administration} Now Labor has a form with "Management" at the top and Management has a form with "Labor" at the top. You (indicating Labor) rate "Management" on all of these scales, and you (indicating Management) rate "Labor".

\textbf{third administration} Now Labor has a "Labor" sheet again and Management has a "Management" sheet. This time Labor, you indicate how you think "Labor" would be rated by "Management" and "Management" you indicate how you think "Management" would be rated by "Labor".

The fifth hypothesis requires comparisons between the subjects' responses on the second and third administrations of these scales. In operational terms the fifth hypothesis predicts that on the three evaluative dimensions, "good-bad", "trustworthy-untrustworthy",

\textsuperscript{13}Because a large number of subjects expressed concern that the terms "cooperative" and "competitive" are not polar opposites, in the same sense as the other five dimensions, this dimension was eliminated from the analysis. Subsequent analysis of responses on this scale was based on the remaining five dimensions.
"honest-dishonest", the ratings indicated by representatives of a party on the third administration of these scales will be significantly lower than the ratings given by representatives of the other party on the second administration. In other words, when asked how they think "Labor" would be rated by "Management" (on the third administration), labor representatives will tend to indicate a lower rating (less positive, or more negative) than they are actually given by "Management" as represented in the present study (on the second administration). Similarly, management representatives will tend to expect lower ratings than they are actually given by "Labor" as represented in the present study. A tendency is predicted then, for each party to think that the other perceives them as less "good", less "trustworthy", and less "honest", than it actually does.

A second rating scale was the 30-item F-scale (Appendix C) adopted from Adorno et al. (1950). This scale was administered following completion of the Semantic Differential-type scales. Standardized instructions were provided with the scale. The F-scale was employed in order to provide some additional information about the relationship between authoritarianism and level of cooperation in the Prisoner's Dilemma (using a sequential-play situation, Deutsch 1960) has shown that subjects who made choices reflecting trust and trustworthiness had low F-scores, whereas subjects who made choices reflecting suspicion and untrustworthiness had high F-scores). Because the results of the Prisoner's Dilemma game had to be excluded from the present analysis, this specific purpose was not achieved. However, the data derived from the F-scale are included in the report.

**Bargaining task:** The management representatives and labor representatives were seated at two separate tables and were instructed
by the experimenter that they would negotiate as two-person teams, a
management team and a labor team, to arrive at a wage settlement in a
simulated bargaining situation. Each team was given four typewritten
pages of information describing the present and projected profit picture
of a fictitious small business enterprise as well as the wages and take-
home pay of employees at various possible wage rates. An outline of the
bargaining "rules" was also included. Here management representatives
were depicted as partners in the business, and the labor representatives
were depicted as the elected officials representing ten employees of the
business. The information available to the management team and the labor
team was identical but for two exceptions: (1) Management's information
included the exact profit figures for past years while Labor had estimates
of the range within which profits fell during the previous year, and
(2) Management received information specifying a projected raw material
cost about which Labor had no information. The fact that Management had
these two additional pieces of information was made known to both teams.
The complete set of information given subjects for this task is presented
below:

You are a partner in a small independent company with assets
of $500,000. You employ 10 gerbil makers. Over the past years
your profits from the sale of gerbils, after payment of all operating
expenses, including the salaries of both you and your partner, have
been as follows:

- $35,000 - 1967
- $25,000 - yearly average for the period 1964-1966
- $20,000 - yearly average for the period 1961-1963

(the only information that Labor possesses concerning
your profits is an estimate that the 1967 profit was
somewhere in the range of $30,000-$50,000)
(This is the initial information given to the management team and this is the only part which differs from the information given the labor team. The corresponding information given Labor was as follows: "You are the certified representatives of 10 gerbil makers employed by a small independent company. The assets of this company amount to $500,000. After payment of all operating expenses, including management salaries, the profit made by this company from the sale of gerbils in 1967 was in the range of $30,000-$50,000 (the exact figure and yearly averages for the periods 1961-1963 and 1964-1966 are known only to Management)."

The rest of the information presented here was given to both the labor team and the management team.)

Each employee is paid the same hourly wage which is renegotiated at the end of each year. Although the negotiated wage has tended to rise over the years, wages have not increased each and every year, and on some occasions they have actually decreased. Both you and the labor (management) representatives have access to an independent analysis which reveals the profits that can be expected at various possible hourly wage rates for the coming year (for example, a profit of $52,500 can be expected if the renegotiated hourly wage is $2.10. The gross earnings for the coming year at this wage would be $4,368 for each gerbil maker.).

The current wage is $3.20 per hour and the task facing both you and the labor (management) representatives is to renegotiate the hourly wage rate for the coming year.

Both Labor and Management will be allowed to discuss the problem with their associate for 10 minutes prior to negotiation. Both parties will then be called to the bargaining table and a timer will be started. Negotiations will cost Management $50 per minute, to be subtracted from the expected profit for the coming year at the settlement wage (for example, if a settlement of $3.00 per hour is reached after 30 minutes of negotiating, $1500 will be subtracted from Management's expected profit for the coming year at that wage. This would leave Management with an expected profit of $30,000 - $1500 = $28,500. Similarly, $1500 will be subtracted from an employee's fund which has the effect of reducing each of the 10 employees' wages by $150 over the year and bringing earnings to $6090 ($6240 - $150 = $6090). This would amount to $150 from each of the 10 employees' wages, leaving each employee with a gross earning of $6240 - $150 = $6090). Should no settlement be reached after 50 minutes, the cost of negotiations will increase to $100 per minute.

Note: If Management finds the initial negotiations unsatisfactory they may choose to lock their employees out. Similarly, should Labor find the initial negotiations unsatisfactory they may choose to strike. In either case, if a decision is made to lock out or to strike, the original analysis of expected profits at various possible hourly wage rates will be replaced by a new one. Subsequent negotiations will be based on this new analysis: here,
both the yearly earnings and the expected profit for the coming year associated with each possible hourly wage will be less than they were in the original analysis. Should a strike or a lockout occur, both Labor and Management will be allowed to adjourn from the bargaining table to discuss the new analysis with their associate. At this point the timer will be stopped and restarted only when both parties have returned to the bargaining table.

The current wage as stated in the instructions was $3.20 per hour and the task facing the subjects was to renegotiate the hourly wage for the coming year. Economic considerations in these negotiations were based on a wage and profit analysis which consisted essentially of a concrete version of Sawyer's bargaining board (Morgan and Sawyer, 1967). This analysis is shown in Figure 1. By giving specific examples subjects were shown how to interpret this wage and profit analysis. For example, the stated current wage of $3.20 per hour appears in row L, about half way down the column of figures on the left. By looking across this row it can be seen that a worker's gross earnings for the coming year at that wage would be $6656, while Management's expected profit for the coming year at that wage would be $25,000. In the same manner a worker's gross earnings and Management's expected profit for the coming year can be derived from each of the possible settlement wage rates which range from $2.10 per hour to $4.60 per hour. Each ten cent increment in hourly wage increases a worker's gross earnings for the coming year by $208, while reducing Management's expected profit by $2500. Consequently a ten cent raise in the existing rate of pay from $3.20 per hour to $3.30 per hour would have the effect of increasing gross earnings from $6656 to $6864, while reducing expected profit from $25,000 to $22,500.

Briefly reviewing the structure of this bargaining task, each team was allowed up to 20 minutes to discuss bargaining strategies and during
<table>
<thead>
<tr>
<th>hourly wage and gross earnings for coming year at that wage</th>
<th>expected profit for coming year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.10 4368 A</td>
<td>52500</td>
</tr>
<tr>
<td>2.20 4576 B</td>
<td>50000</td>
</tr>
<tr>
<td>2.30 4784 C</td>
<td>47500</td>
</tr>
<tr>
<td>2.40 4992 D</td>
<td>45000</td>
</tr>
<tr>
<td>2.50 5200 E</td>
<td>42500</td>
</tr>
<tr>
<td>2.60 5408 F</td>
<td>40000</td>
</tr>
<tr>
<td>2.70 5616 G</td>
<td>37500</td>
</tr>
<tr>
<td>2.80 5824 H</td>
<td>35000</td>
</tr>
<tr>
<td>2.90 6032 I</td>
<td>32500</td>
</tr>
<tr>
<td>3.00 6240 J</td>
<td>30000</td>
</tr>
<tr>
<td>3.10 6448 K</td>
<td>27500</td>
</tr>
<tr>
<td>3.20 6656 L</td>
<td>25000</td>
</tr>
<tr>
<td>3.30 6864 M</td>
<td>22500</td>
</tr>
<tr>
<td>3.40 7072 N</td>
<td>20000</td>
</tr>
<tr>
<td>3.50 7280 O</td>
<td>17500</td>
</tr>
<tr>
<td>3.60 7488 P</td>
<td>15000</td>
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<tr>
<td>3.70 7696 Q</td>
<td>12500</td>
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<tr>
<td>3.80 7904 R</td>
<td>10000</td>
</tr>
<tr>
<td>3.90 8112 S</td>
<td>7500</td>
</tr>
<tr>
<td>4.00 8320 T</td>
<td>5000</td>
</tr>
<tr>
<td>4.10 8528 U</td>
<td>2500</td>
</tr>
<tr>
<td>4.20 8736 V</td>
<td>0</td>
</tr>
<tr>
<td>4.30 8944 W</td>
<td>-2500</td>
</tr>
<tr>
<td>4.40 9152 X</td>
<td>-5000</td>
</tr>
<tr>
<td>4.50 9360 Y</td>
<td>-7500</td>
</tr>
<tr>
<td>4.60 9568 Z</td>
<td>-10000</td>
</tr>
</tbody>
</table>

Figure 1. Wage and profit analysis to be used in the bargaining task.
this time one team was permitted to use a separate room so as not to be
overheard by the team remaining in the experimental room. Subjects were
then called to a central bargaining table in the experimental room, with
the labor team seated on one side of the table and the management team
on the other, a timer which was visible to the participants was started,
and "negotiations" began. This part of the session proceeded until either
a settlement wage was agreed upon by both teams, or one team indicated
that they considered a stalemate to have been reached.

A "time constraint" was introduced to simulate the costs of protracted
negotiations in the real world and as an incentive for the subjects to keep
this part of the session moving at a rapid pace. This involved an imaginary
$50.00 per minute cost, to be deducted from Management's profit and Labor's
gross earnings at the eventual settlement wage level. Subjects were
informed that this cost would be increased to $100.00 per minute should
the bargaining session proceed longer than 50 minutes. A team was allowed
to withdraw from the bargaining table at any time in order to discuss
offers, demands, strategies, etc. They were informed however, that the
timer would continue to run during these periods.

A provision was also made for the possibility of a team finding the
negotiations unsatisfactory. In this event, Labor had the right to
"strike" and Management had the right to "lock out". Subjects were informed
that a decision to either "strike" or "lock out" would result in replace­
ment of the original wage and profit analysis with a new one, shown in
Figure 2. Subsequent negotiations would be based on the figures in this
new analysis, which differed from those in the original analysis to the
extent that a worker's gross earning and Management's expected profit
<table>
<thead>
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<th>Expected Profit</th>
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<td>4896</td>
<td>D</td>
</tr>
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<td>2.50</td>
<td>5100</td>
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<tr>
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<td>P</td>
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<td>Y</td>
</tr>
<tr>
<td>4.60</td>
<td>9384</td>
<td>Z</td>
</tr>
</tbody>
</table>

Figure 2. Wage and profit analysis to be used in the event of a "strike" or "lock out".
at each hourly wage were lower in the new analysis. This procedure was intended as a simulation of the costs invoked by a breakdown in negotiations. Subjects were also informed that should a "strike" or "lock out" occur, both the labor team and the management team would be allowed to adjourn from the bargaining table to discuss strategy. At this point the timer was to be stopped and restarted only when both parties returned to the bargaining table.

The settlement wage and time taken to reach a settlement were recorded. A rating scale was administered following the bargaining session. This scale consisted of a 7-point line, 19 cm. in length (Fig. 3), on which the subjects were asked to indicate their satisfaction with the outcome of the bargaining session. The scale was anchored with the headings EXTREMELY SATISFIED and EXTREMELY UNSATISFIED. In addition, the bargaining session was tape recorded¹⁴ for the purpose of a subsequent content analysis¹⁵.

The experimental session concluded with a brief informal discussion period. These discussions usually involved comments on specific labor-

¹⁴The bargaining session was tape recorded with the knowledge and consent of the subjects.

¹⁵Although ten bargaining sessions were conducted, data from two of these were eliminated from the analysis. In one of these sessions the behavior of a subject suggested inadequate comprehension of the instructions, while in the other session a management representative and a labor representative indicated that they had previously participated in negotiations with each other, and much of their behavior during the session was conducted on a personal level, in the sense that specific prior bargaining experiences appeared to play a major role in determining their behavior during the session. (Note that the reasoning for elimination of this session from the analysis is consistent with the criteria established for the structuring of the groups.) Subsequent analysis of the bargaining data was based on the remaining eight sessions.
Figure 3. Scale for indication of personal satisfaction with the outcome of the bargaining session.
management relationships in the greater Vancouver business-industrial area and the application of social psychological principles in the bargaining relationship. No formal data were collected during this period. At this time the experimenter fully explained the purpose of the study and answered any questions.

C. Summary

In the present study 19 management and 15 labor representatives with formal bargaining experience participated in sessions designed to yield descriptive data concerning social psychological aspects of the bargaining relationship. A total of ten 3-hour sessions were conducted in which the subjects participated in 3- and 4-person groups. The tasks included an Opinion Questionnaire, Semantic Differential-type scales, the F-scale, a Prisoner's Dilemma-type game, and a simulated bargaining problem.

The Opinion Questionnaire was comprised of 25 statements concerning labor relations with which subjects might agree or disagree. A subject was asked to indicate for each statement the opinion he perceived his own party to hold, the opinion he perceived the other party to hold, his own personal opinion, and, after interacting with the other group members in the bargaining situation, the opinion he thought each of the others held. Operational statements of each of the four hypotheses dealing with the questionnaire responses were presented.

The Semantic Differential-type scales consisted of the following six dimensions: "good-bad", "trusting-suspicious", "strong-weak", "honest-dishonest", "trustworthy-untrustworthy", "cooperative-competitive". On separate administrations of these scales a subject was required to indicate for each of the six dimensions how he would rate his own party,
how he would rate the other party, and how he thought his own party would be rated by the other party. An operational statement of the hypothesis dealing with the semantic differential-type responses was presented.

The session also included a bargaining task which cast management representatives in the role of business partners and labor representatives as the elected officials representing employees of the business. The task required the representatives of the two parties to negotiate a wage settlement for the coming year on the basis of a projected wage and profit analysis which was adapted from the model of Sawyer's bargaining board. The negotiations were tape recorded and subjected to a formal content analysis. In addition, a scale on which the subjects indicated their level of satisfaction with the outcome of the bargaining session was administered.
CHAPTER FOUR: RESULTS AND DISCUSSION

The analysis and discussion of results will be developed first in terms of the perceptions of persons involved in the labor-management relationship, and second in terms of the various approaches to negotiations employed by these persons in a simulated bargaining situation. In the present context the term "perception" is used to encompass some of the ways in which labor and management representatives view "Labor" and "Management" as distinct groups or parties participating in a bargaining relationship. This perceptual information was obtained using the Opinion Questionnaire and the Semantic Differential-type scales. Bargaining data were obtained by formal analysis of the verbal content of the negotiating session. In addition, information was collected concerning the time taken to reach a settlement, settlement wage, and degree of satisfaction with the settlement.

Although data of both a descriptive and a comparative nature will be presented, emphasis in the text is placed on comparisons between and within groups. For example, homogeneity of labor representatives' opinions vs homogeneity of management representatives' opinions constitutes a between-groups comparison, while perception by management representatives of the opinions held by their own party vs the personal opinions of management representatives constitutes a within-groups comparison. Consequently, tables and figures have been organized to include certain summary statistics which are descriptive in nature as well as those necessary for making relevant comparisons.

A. Perceptions of the Parties in a Bargaining Relationship

The responses given by labor and management representatives to the
24 questionnaire items are summarized in Table 1 in terms of the percentage of subjects who:

(i) think their own party agrees with each statement;

(ii) think the other party agrees with each statement;

and (iii) personally agree with each statement.

As an example of the way in which this information is interpreted, consider the first questionnaire item, "The need to look good to one's constituents plays a very important role in determining a labor representative's bargaining behavior." From the top row of figures in Table 1 it can be seen that 95% (or 18 of 19) of the management representatives thought "Management" in general would agree with this statement and 64% (or 9 of 14) of the labor representatives thought "Labor" in general would agree. It can also be seen that 89% of the management representatives thought "Labor" in general would agree with the statement and 92% of the labor representatives thought "Management" in general would agree. Finally, it can be seen that 89% of the management representatives personally agree with the statement and 64% of the labor representatives personally agree.

The information obtained from the Opinion Questionnaire can be looked at in another way. Considering this information in terms of the responses required on the questionnaire, recall that a subject was asked, in effect, to indicate for each item:

(a) the opinion that he thinks his own party holds;

(b) the opinion that he thinks the other party holds;

and (c) his own personal opinion.

The first three hypotheses are reiterated below along with an indication of which two of the three responses above constitutes the comparison
Table 1. Perceptions by the subjects of the opinions of "Management" and "Labor", and the personal opinions of the subjects.

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Management (n=19)</th>
<th>Labor (n=14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The need to look good to one’s constituents plays a very important role in determining a labor representative’s bargaining behavior.</td>
<td>95  89  89</td>
<td>64  92  64</td>
</tr>
<tr>
<td>2. In contract negotiations management interprets the goals of labor fairly accurately.</td>
<td>74  42  84</td>
<td>39  86  61</td>
</tr>
<tr>
<td>3. Government should in no way interfere with labor’s right to strike.</td>
<td>11  84  47</td>
<td>79  14  57</td>
</tr>
<tr>
<td>4. In an industry in the &quot;best of all possible worlds&quot; there would be no need for unions.</td>
<td>63  0  16</td>
<td>50  100  29</td>
</tr>
<tr>
<td>5. Most strikes are precipitated by inflexible management.</td>
<td>5   84  0</td>
<td>86   7  71</td>
</tr>
<tr>
<td>6. In negotiating a settlement with the other party I would like to be completely honest, but I am afraid that my honesty would be taken advantage of.</td>
<td>74  79  58</td>
<td>64  64  71</td>
</tr>
<tr>
<td>8. Management is genuinely concerned with the needs of the worker.</td>
<td>79  11  74</td>
<td>36  86  29</td>
</tr>
</tbody>
</table>
9. In contract negotiations, one should seek to acquire every possible advantage over the other party.

10. In bargaining disputes, labor rarely seems to appreciate the problems facing management.

11. The union shop places undesirable barriers in the way of communication between management and employees.

12. The closed shop places undesirable barriers in the way of communication between management and employees.

13. I think that a frank interchange of ideas between local labor leaders and top management personnel could alleviate much of the tension that exists in industrial relations today.

14. In general, labor-management relations could be improved.

15. Unrealistic opening offers and demands are an essential part of the bargaining process.

16. Labor is more likely to take advantage of contract loopholes than is management.

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Management</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
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<tr>
<td>12.</td>
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<tr>
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<tr>
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<tr>
<td>15.</td>
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<td>16.</td>
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Table 1 (continued)

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Management</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>indicating agreement by &quot;Management&quot;</td>
<td>indicating agreement by &quot;Labor&quot;</td>
</tr>
<tr>
<td>17. A good labor representative can usually do what he thinks is right in labor-management bargaining situations and not worry about looking good to his constituents.</td>
<td>11%</td>
<td>42%</td>
</tr>
<tr>
<td>18. Sometimes the real needs of the worker are overlooked by the union officials who represent him.</td>
<td>95%</td>
<td>26%</td>
</tr>
<tr>
<td>19. Government should in no way interfere with management's right to lock out.</td>
<td>58%</td>
<td>32%</td>
</tr>
<tr>
<td>20. Labor people are generally more sensitive to social injustices than are management people.</td>
<td>47%</td>
<td>89%</td>
</tr>
<tr>
<td>21. The provincial labor laws favor management.</td>
<td>11%</td>
<td>84%</td>
</tr>
<tr>
<td>22. The right to strike is an indispensable part of the labor-management relationship.</td>
<td>79%</td>
<td>89%</td>
</tr>
<tr>
<td>23. Persons who think a state of mutual trust can be established between labor and management are being unrealistic.</td>
<td>17%</td>
<td>28%</td>
</tr>
<tr>
<td>24. Most strikes are precipitated by inflexible labor.</td>
<td>47%</td>
<td>0%</td>
</tr>
<tr>
<td>25. The provincial labor laws favor labor.</td>
<td>53%</td>
<td>0%</td>
</tr>
</tbody>
</table>
appropriate to each hypothesis:

**hypothesis 1.** Issues on which the two parties are thought to hold differing opinions will be indicated more frequently by Labor than by Management. This hypothesis involves (a) and (b) and compares the mean number of statements on which a difference of opinion is perceived by labor representatives with the mean number of statements on which a difference is perceived by management representatives.

**hypothesis 2.** The personal opinions of Management will differ from the opinions they think their own party holds more frequently than the personal opinions of Labor will differ from the opinions they think their own party holds. This hypothesis involves (a) and (c) and compares the mean number of statements on which a management representative's personal opinion differs from the opinion he thinks "Management" in general holds with the mean number of statements on which a labor representative's personal opinion differs from the opinion he thinks "Labor" in general holds.

**hypothesis 3.** Issues on which one's personal opinion differs from the opinion one thinks is held by the other party will be indicated more frequently by Labor than by Management. This hypothesis involves (c) and (b) and compares the mean number of statements on which a labor representative's personal opinion differs from the opinion he thinks "Management" in general holds with the mean number of statements on which a management representative's personal opinion differs from the opinion he thinks "Labor" in general holds.
The data used to test each of these hypotheses are shown in Table 2 in terms of the number of questionnaire items on which the requisite differentiation of opinions occurred in the responses of the subjects. As an example of the way in which this information is interpreted, consider the responses of the first management representative and the first labor representative. From the top row of figures in Table 2 it can be seen that the management representative indicated a difference of opinion between the two parties on 11 of the 24 items and the labor representative indicated a difference on 17 of the 24 items. It can also be seen that the management representative indicated a difference between his personal opinion and the opinion he thought his own party held on 1 of the 24 items and the labor representative indicated a difference on 4 of the 24 items. Finally, it can be seen that the management representative indicated a difference between his personal opinion and the opinion he thought the other party held on 10 of the 24 items and the labor representative indicated a difference on 13 of the 24 items. Note that the data in this table refer to the number of questionnaire statements on which a difference was indicated by each subject and should not be confused with the percentage of subjects perceiving agreement with each of these questionnaire statements shown in Table 1.

**Perceived differences of opinion as potential sources of tension and conflict:** It was argued earlier that the behavior of "Labor" suggests that they view tension and conflict as states which can be beneficial to the attainment of their goals, whereas the behavior of "Management" suggests that they view tension and conflict as states which can be detrimental to the attainment of their goals. It was also noted that
Table 2. Number of questionnaire items on which differentiation of opinions occurred in the responses of the subjects.

<table>
<thead>
<tr>
<th>Subject</th>
<th>MANAGEMENT</th>
<th></th>
<th></th>
<th>LABOR</th>
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<td>self-own</td>
<td>self-other</td>
<td>own party-</td>
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<td>6</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>S16</td>
<td>13</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>S17</td>
<td>12</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>S18</td>
<td>15</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>S19</td>
<td>12</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Means</td>
<td>11.21</td>
<td>5.56</td>
<td>9.79</td>
</tr>
</tbody>
</table>

| LABOR | own party- | self-own | self-other |
|       | other party different | party different | party different |
| S13   | 17 | 5 | 14 |
| S14   | 14 | 2 | 12 |
| S15   | 14.14 | 3.86 | 13.14 |
differences, actual or perceived, between two parties provide a basis for tension and conflict. In keeping with this rationale, the first hypothesis predicted that issues on which the two parties are thought to hold differing opinions will be indicated more frequently by labor than by management representatives. Consistent with this hypothesis, the mean number of statements on which these differences were indicated by labor representatives was 14.14 (59% of the statements) and the mean number on which differences were indicated by management representatives was 11.21 (47% of the statements). This difference produced a $t$ of 2.45 (df=31), significant beyond the .05 level (one-tail). Those statements on which differences of opinion between the two parties were most frequently indicated are listed in Appendix D.

These results suggest that, to the extent to which perceived differences of opinion between "Labor" and "Management" serve as a basis for tension and conflict, the potential sources of such tension and conflict are more likely to appear in the perceptions of "Labor" than in the perceptions of "Management". (One cautious reservation must be considered in interpreting these results. It is possible that in the context in which data were collected (both labor and management representatives present, sequential administration of questionnaires, etc.) differences between Labor and Management appeared, whereas, in a real-life situation they might not have. In other words, the observed differences might be unique to the laboratory situation in which an experimenter actively investigates perceived opinions rather than reflecting differences which are perceived in the everyday context of the labor-management bargaining relationship. This criticism, implying a demand-induced or context-
derived effect, also applies to subsequent observations relating to the
other four hypotheses.)

Perceived party opinions, personal opinions, and the "party line":
Inherent in the second, third, and fourth hypotheses is the prediction
that the personal opinions of labor representatives will be very much
like the opinions which they think their own party, in general, holds; the
personal opinions of management representatives, on the other hand, will
show greater independence from the opinions that they think their own
party, in general, holds. Of particular interest here is the extent to
which the perceived "party line" appears in the personal opinions of
party representatives, and the extent to which differences of opinion
between "Labor" and "Management" are perceived at the level of personal
opinion. Also of interest is the number of subjects who perceive party
opinions in the same way as their fellow representatives, as well as the
number of subjects who hold personal opinions like those of their fellow
representatives.

Previously it was noted that the tactic of presenting the party
position on issues as one that is supported by a united membership appears
to have gained some degree of prominence on the part of "Labor", but not
on the part of "Management". For this reason it was hypothesized that
the personal opinions of individual management representatives would
differ from the opinions they think "Management" in general hold more
frequently than the personal opinions of individual labor representatives
would differ from the opinions they think "Labor" in general hold.
Consistent with this second hypothesis, the mean number of statements
on which these differences occurred for management representatives was
5.56 (23% of the statements) and the mean number for labor representatives was 3.86 (16% of the statements). This difference produced a $t$ of 1.86 (df=31), significant beyond the .05 level (one-tail). Those statements on which differences most frequently occurred between the personal opinion of a party representative and the opinion which he thought his own party held are listed in Appendices E and F.

To briefly reiterate the previous two hypotheses, it was predicted that issues on which the two parties are thought to hold differing opinions would be indicated more frequently by Labor than by Management (first hypothesis), and that there would be more similarity between the personal and perceived party opinions of Labor than between the personal and perceived party opinions of Management (converse of the second hypothesis). In keeping with these predictions it was also hypothesized that labor representatives will indicate more issues on which their personal opinion differs from the opinion they think the other party holds than will management representatives. Consistent with this third hypothesis, the mean number of statements on which these differences occurred for labor representatives was 13.14 (55% of the statements) and the mean number for management representatives was 9.79 (41% of the statements). This difference produced a $t$ of 3.77 (df=31), significant beyond the .001 level (one-tail).

If the tactic of presenting a united front in support of one's position is indeed a more salient one for "Labor" than for "Management", it would be expected that the position to be taken by "Labor" on particular issues will be made clear to its membership. In keeping with this "party line" rationale, the fourth hypothesis predicted that Labor will be more homogeneous than Management in (a) the perception of their own party's
opinions, (b) the perception of the other party's opinions, and in (c) their own personal opinions. The results failed to confirm any of these predictions. Over all questionnaire items:

(a) the mean percentage of labor representatives indicating a common perception of their own party's opinions was 79.29, not significantly different from the mean of 75.96% for management representatives.\(^\text{16}\)

(b) the mean percentage of labor representatives indicating a common perception of the other party's opinions was 80.67, not significantly different from the mean of 84.21% for management representatives.

(c) the mean percentage of labor representatives indicating a common personal opinion was 76.42, not significantly different from the mean of 73.83% for management representatives.

At this point some comments on interpretation are in order. The predictions made by the second and third hypotheses were confirmed, suggesting that there is a greater tendency for "Labor" than for "Management" to hold personal opinions which resemble a perceived "party line", when this "party line" is defined for each \(S\) as the opinions which he perceives his party in general to hold. Unfortunately, the data do not bear upon the validity of the assumption underlying the hypotheses, i.e., that a

\(^{16}\)The mean percentage for a party was calculated by taking the largest number of subjects in the party who perceived the same opinion on the first questionnaire item. This number was then converted to a percentage of the total number of subjects in the party. Since there were only two possible responses, "agree" and "disagree", this number always equalled half or more of the subjects in the party (i.e., this percentage could be no lower than 50% for Labor, representing 7 of the 14 labor subjects, and no lower than 53% for Management, representing 10 of the 19 management subjects). This procedure was repeated for the remaining 23 items on the Opinion Questionnaire, giving 24 percentages. The mean of these 24 percentages was then taken as an overall measure of homogeneity for the party.
causal relationship exists between perceived party opinions and the personal opinions of party members. Although Labor tended, to a greater extent than Management, to hold personal opinions resembling a perceived "party line", the question remains as to whether a labor representative forms his opinions on the basis of what he perceives "Labor" in general to be thinking, or simply assumes that in forming opinions "Labor" in general thinks the same way he does.

In light of the "party line" reasoning, the finding of no differences between Labor and Management in terms of homogeneity of perception or in terms of homogeneity of personal opinion was unexpected. The most parsimonious interpretation is that if exogenous "party lines" do exist, the "party line" adopted by "Labor" is no more well defined for labor representatives than any "Management party line" is for management representatives.

Perceptions and misperceptions: In addition to the Opinion Questionnaire, five Semantic Differential-type scales were employed to obtain perceptual data. All data from these scales were analyzed using $t$ tests\(^{17}\), and the statistical information corresponding to comparisons made in the text appear in Appendix G.

The mean ratings given by management representatives to "Management" and to "Labor" on each of the five scales are presented in Table 3. To

\(^{17}\)Altogether, a total of 20 statistical comparisons were made on the basis of the Semantic Differential data. Although differences proved significant in 11 of the 20 cases, the likelihood of making type I errors is increased by making multiple comparisons in this fashion. Thus, the possibility that any one of these differences is spurious, cannot be overlooked.
summarize these results, management representatives saw "Management",
(a) as good as,
(b) not as suspicious as,
(c) not as strong as,
(d) more honest than,
and (e) more trustworthy than
"Labor".

The mean ratings given by labor representatives to "Labor" and to
"Management" on each of the five scales are presented in Table 4. To
summarize these results, labor representatives saw "Labor" as,
(a) better than,
(b) as suspicious as,
(c) as strong as,
(d) more honest than,
and (e) more trustworthy than
"Management".

These results indicate a tendency for both Labor and Management to
rate their own party in a more positive (or less negative) manner than the
other party (an exception is the management representatives' tendency to
rate "Management" as not as strong as "Labor").

It was argued earlier that inherent in the roles prescribed for
labor and management representatives are particular attitudes and tactics
which may create an impression of hostility towards the other party which
is more a matter of show than actual inclination. For this reason it
was hypothesized that representatives of both parties will tend to think
that the other party perceives them in a less favorable manner than it
<table>
<thead>
<tr>
<th>Scale</th>
<th>&quot;Management&quot;</th>
<th>&quot;Labor&quot;</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>good-bad</td>
<td>+1.39</td>
<td>+1.18</td>
<td></td>
</tr>
<tr>
<td>trusting-suspicious</td>
<td>-0.12</td>
<td>-1.25</td>
<td>&lt;.002</td>
</tr>
<tr>
<td>strong-weak</td>
<td>+0.94</td>
<td>+1.62</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>honest-dishonest</td>
<td>+1.65</td>
<td>+0.96</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>trustworthy-untrustworthy</td>
<td>+1.69</td>
<td>+0.85</td>
<td>&lt;.002</td>
</tr>
</tbody>
</table>

(In Tables 3-6, +3 represents a maximally positive rating (e.g., extremely "good"); whereas -3 represents a maximally negative rating (e.g., extremely "bad"); 0 (zero) represents a neutral rating.)

Table 4 Comparison of mean ratings given "Labor" and "Management" by labor representatives on the Semantic Differential-type scales.

<table>
<thead>
<tr>
<th>Scale</th>
<th>&quot;Labor&quot;</th>
<th>&quot;Management&quot;</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>good-bad</td>
<td>+2.05</td>
<td>+0.78</td>
<td>&lt;.02</td>
</tr>
<tr>
<td>trusting-suspicious</td>
<td>-0.24</td>
<td>-0.83</td>
<td></td>
</tr>
<tr>
<td>strong-weak</td>
<td>+0.97</td>
<td>+1.51</td>
<td></td>
</tr>
<tr>
<td>honest-dishonest</td>
<td>+1.95</td>
<td>+0.74</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>trustworthy-untrustworthy</td>
<td>+1.88</td>
<td>+0.34</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>
actually does. Specifically, when asked how they think "Labor" would be rated by "Management", labor representatives were expected to indicate a lower rating on the three evaluative dimensions ("good-bad", "honest-dishonest", "trustworthy-untrustworthy") than they were actually given by the management representatives. Similarly, when asked how they think "Management" would be rated by "Labor", management representatives were expected to indicate a lower rating on these dimensions than they were actually given by the labor representatives. Entirely consistent with this fifth hypothesis, the actual mean rating given "Labor" by management representatives was significantly higher than the mean rating predicted by the labor representatives on each of the evaluative dimensions. The actual mean rating given "Management" by labor representatives was significantly higher than the mean rating predicted by the management representatives on the "good-bad" dimension only. Although differences between actual and predicted ratings on the "honest-dishonest" and "trustworthy-untrustworthy" dimensions are in the direction predicted by the hypothesis, they fail to reach conventional levels of significance. Consequently, the findings here are considered as partial confirmation of the hypothesis. These results are presented in Tables 5 and 6. To summarize, labor representatives expected "Labor" to be rated,

(a) not as good as,
(b) not as honest as,
and (c) not as trustworthy as
"Labor" was actually rated by Management in the present study. Management representatives expected "Management" to be rated,

(a) not as good as,
Table 5. Comparison of mean ratings given "Labor" by management representatives and mean ratings that labor representatives predict "Labor" would be given by "Management" on the Semantic Differential-type scales.

<table>
<thead>
<tr>
<th>scale</th>
<th>actual rating by Management</th>
<th>rating predicted by Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>good-bad</td>
<td>+1.18</td>
<td>-0.43</td>
</tr>
<tr>
<td>trusting-suspicious</td>
<td>-1.25</td>
<td>-1.12</td>
</tr>
<tr>
<td>strong-weak</td>
<td>+1.62</td>
<td>+1.73</td>
</tr>
<tr>
<td>honest-dishonest</td>
<td>+0.96</td>
<td>-0.01</td>
</tr>
<tr>
<td>trustworthy-untrustworthy</td>
<td>+0.85</td>
<td>-0.53</td>
</tr>
</tbody>
</table>

Table 6. Comparison of mean ratings given "Management" by labor representatives and mean ratings that management representatives predict "Management" would be given by "Labor" on the Semantic Differential-type scales.

<table>
<thead>
<tr>
<th>scale</th>
<th>actual rating by Labor</th>
<th>rating predicted by Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>good-bad</td>
<td>+0.78</td>
<td>-0.51</td>
</tr>
<tr>
<td>trusting-suspicious</td>
<td>-0.83</td>
<td>-1.34</td>
</tr>
<tr>
<td>strong-weak</td>
<td>+1.51</td>
<td>+1.78</td>
</tr>
<tr>
<td>honest-dishonest</td>
<td>+0.74</td>
<td>-0.02</td>
</tr>
<tr>
<td>trustworthy-untrustworthy</td>
<td>+0.34</td>
<td>-0.13</td>
</tr>
</tbody>
</table>
"Management" was actually rated by Labor in the present study.

To the extent that the expected ratings and the actual ratings do not coincide, it appears that both "Labor" and "Management" are likely to misperceive the way in which they are viewed, evaluatively at least, by members of the other party. The tendency towards misperception seems to be more pronounced on the part of "Labor" than "Management", an observation which is consistent with the finding that management representatives were slightly more accurate in their perceptions of the personal opinions held by individual members of the other party than were labor representatives (on the Opinion Questionnaire, the mean number of items on which management representatives correctly assessed the personal opinion of a particular labor representative was 15.94 (66% of the statements) and the mean number of items on which labor representatives correctly assessed the personal opinion of a particular management representative was 13.43 (56% of the statements). This difference produced a t of 4.30 (df=30), significant beyond the .002 level (two-tail).¹⁸

Authoritarianism: In a recent evaluation of some of the existing literature on authoritarianism, one conclusion reached by Kirscht and Dillehay (1967) was that the most useful way to define authoritarianism

¹⁸It might be argued that the Opinion Questionnaire involved more items on which it was 'easier' to assess a labor representative's personal opinion than it was to assess a management representative's personal opinion. If this was the case, we would expect more agreement (homogeneity) among all subjects when assessing the personal opinions of labor representatives than when assessing the personal opinions of management representatives. The results do not support this argument. Over all questionnaire items, the mean percentage of subjects indicating a common perception of management personal opinions was 78.31 and the mean percentage indicating a common perception of Labor personal opinions was 81.75. This difference was not statistically significant.
is in terms of a cognitive style characterized by closed-minded thinking. In this regard, they state,

The genuine authoritarian lacks ability to deal with novel cognitive material, seeks rapid closure when exposed to new situations, and ultimately depends heavily on external authority for support of his belief system. To be sure, the style is mediated and maintained through a set of beliefs and through social reality. The particular beliefs and behaviors vary from person to person, but the style of cognition is relatively permanent. (Kirscht and Dillehay, 1967, pp. 132-133).

In the present study, labor representatives scored higher on the F-scale, that is, more authoritarian, than did management representatives. The mean scores were 104.85 for labor representatives and 76.78 for management representatives. This difference produced a t of 3.25 (df=31), significant beyond the .01 level (two-tail).

Although a lively controversy has taken place concerning the relation of authoritarianism to a liberal-conservative continuum (Janowitz and Marvick, 1953; Christie, 1954; Shils, 1954; Levinson, 1957), it has been generally conceded that authoritarianism is more highly correlated with leftist ideologies than with rightist ideologies (Rokeach, 1960; Barker, 1963; Leventhal et al., 1964). If, however, authoritarians do tend to prefer conservative ideologies, the finding of a significant difference in the direction reported here is inconsistent with the traditional images of "Labor" and "Management". Traditionally, "Labor" has been viewed as leaning to the left and "Management" as leaning to the right on socio-economic and political issues. However, the higher F-scores of labor representatives and the related implications concerning preference for a conservative ideology are not inconsistent with certain recent observations on the voting behavior of labor constituents. In the 1968
U. S. presidential election, not only did George Wallace receive substantial support from the "blue collar" workers, but several prominent labor organizations actively endorsed the candidacy of Richard Nixon. Similarly, in the 1969 provincial election, it was apparent that a significant portion of the labor force voted for candidates representing the political right in British Columbia. These general behavioral observations in conjunction with the present findings, which can be interpreted as reflecting tendencies towards a particular cognitive style, suggest that the traditional differentiation between "Labor" and "Management" on a unitary left-right dimension may be inappropriate.\(^{19}\)

B. Approaches to Negotiations Employed by the Parties in a Bargaining Relationship

In addition to formal analysis of the verbal content of each bargaining session some statistical features were extracted from the sessions and these are presented in Table 7. To summarize, Labor's opening wage demands ranged from hourly increases of 14.5¢ to 50¢, with a mean of 30.6¢, while Management's open wage offers ranged from an hourly wage cut of 40¢ to an hourly increase of 20¢, with a mean of -5.1¢. The eventual hourly wage increases negotiated ranged from 12¢ to 21¢ with a mean of 17.9¢.\(^{20}\) In order to reach these settlements Labor was required to lower their original demands by from 0¢ to 32¢, with a mean shift of

\(^{19}\)Although an interpretation of the F-scale results in terms of liberal and conservative ideologies was considered appropriate in the present context, other interpretations having to do with the relative educational level, socio-economic status, etc., of labor and management representatives might just as easily be invoked.

\(^{20}\)Some of the opening proposals and eventual settlements involved wage increases spread over a two-year contract term. In order to obtain a figure for the one-year period the average yearly wage increase was calculated.
Table 7. Summary features of the bargaining sessions

<table>
<thead>
<tr>
<th>group</th>
<th>MGT</th>
<th>LBR</th>
<th>opening wage proposal (c/hr)</th>
<th>opening wage proposal (c/hr)</th>
<th>movement from opening wage proposal (c/hr)</th>
<th>mean level of satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MGT</td>
<td>LBR</td>
<td>MGT</td>
<td>LBR</td>
<td>MGT</td>
<td>LBR</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>38</td>
<td>+10</td>
<td>-18</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>-40</td>
<td>27</td>
<td>+52</td>
<td>-15</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>25</td>
<td>+21</td>
<td>-4</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>1</td>
<td>-20</td>
<td>30</td>
<td>NO SETTLEMENT</td>
<td>(+16)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>1</td>
<td>14.5</td>
<td>14.5</td>
<td>14.5</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>50</td>
<td>18</td>
<td>+18</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>2</td>
<td>20</td>
<td>30</td>
<td>0</td>
<td>-10</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>1</td>
<td>-20</td>
<td>30</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>means</td>
<td></td>
<td></td>
<td>-5.1</td>
<td>30.6</td>
<td>17.9</td>
<td>+20.1</td>
</tr>
</tbody>
</table>

\(^{a}\) opening proposal included the stipulation of a staff reduction from ten to nine employees

\(^{b}\) settlement tentative, requiring a further meeting at which time Management would "open the books" to Labor

\(^{c}\) time to settlement not recorded because no time constraint was present in the first session

\(^{d}\) satisfaction scales not administered in this session

\(^{e}\) does not include the 78 minutes taken by group 5, since no settlement was reached in this particular session
-12.7c, while Management had to raise their original offers by from 0c to 52c, with a mean shift of +20.1c. The time required to reach these settlements ranged from 18 to 63 minutes, with a mean of 39.3 minutes. One of the eight groups was deadlocked after 78 minutes of negotiating and no settlement was reached in this particular session. Indications of level of satisfaction with the outcome were made by placing a mark on a 19 cm. line with "extreme dissatisfaction" at the low end and "extreme satisfaction" at the high end of this scale. The means were 10.9 for Management and 10.1 for Labor; the difference being insignificant.

The bargaining sessions were highly animated and "negotiations" appeared to be taken extremely seriously by all of the subjects. However, the rigorous quantification originally intended for the verbal content of these sessions was not attained due to the small number of groups studied. For this reason the bargaining behavior will be discussed in both quantitative and qualitative terms. The quantitative data is comprised of the results of the formal content analysis while the qualitative data consists of summaries of the chronological sequence of events which took place in each of the eight bargaining sessions.

The data derived from the content analysis were dealt with in a manner similar to the perceptual data: comparisons were made both between and within parties. When comparing the incidence of a particular content item between Labor and Management, for example, the incidence of threatening statements, a sign test was employed and a correction procedure was adopted. This procedure involved converting the number of times the particular content item appeared in the text of a party's statements to a percentage of the total number of content items coded for that party. The resulting
comparison between percentages was intended as a means of minimizing effects of the unequal number of labor and management representatives in some of the groups. When comparing the incidence of particular types of content items within a party, for example, the incidence of blatant threats relative to subtle threats by Management, the Wilcoxon matched-pairs signed-rank test was employed. The results of this analysis will be reviewed now. (A complete list of the categories employed in the content analysis with examples from the sessions representative of each category appears in Appendix H. Examples cited in the text were taken from the sessions.)

Party positions: In the bargaining sessions both Labor and Management concentrated on presenting the positions of their own "party" on the wage issue, questioning the position taken by the other "party", and dealing with questions and arguments from the other "party". In the course of "negotiations" Management tended to make more references to their own party's position than did Labor, while Labor tended to make more references to the other party's position than did Management. Of all the references to the position taken by one's own party, 68% of these were made by Management and 32% were made by Labor (p<.07). Of all the references to the position taken by the other party, 69% of these were made by Labor and 31% were made by Management (p<.07). Referring to their own position, Management emphasized it as one of weakness (e.g., "... we have had an increase in our distribution cost of 30% and this has kicked us right in

\textsuperscript{21}This correction procedure was introduced prior to any statistical comparison between the two parties. In addition, wherever an explicit comparison is made in the text in terms of the magnitude of differences between the two parties, the figures cited (percentages) are based on the corrected data.
the rear end . . . we kind of thought we had things going on the road here . . . but . . . this has turned into a revolting development." as opposed to one of strength (e.g., "We've only had one gerbil-maker leave us in the past year . . . we certainly had no trouble replacing him."). Labor, on the other hand, referred to Management's position of strength (e.g., "... a small increase in the price of gerbils wouldn't do any harm anywhere . . . there's other manufacturers that want to increase (the price of) their gerbils, and they're only waiting for a leader---and you are a leader in this industry.") as often as to their position of weakness (e.g., "Really, based on your investment, your profits aren't up to 6% on capital investment here and this isn't the best situation possible."). In classifying the references to Management's position, 93% of the references made by Management were judged as emphasizing weakness and 7% were judged as emphasizing strength (p<.02); 50% of the references made by Labor emphasized weakness and 50% emphasized strength. In addition, Labor made reference to their own position of strength as often as to their own position of weakness. In classifying these references, 45% were judged as emphasizing strength and 55% were judged as emphasizing weakness.

In the present study then, Management's position tended to be the subject upon which both parties focussed their attention. Since Management emphasized the difficulties of weaknesses inherent in the bargaining position in which they found themselves, an approach which frequently included direct appeals for sympathetic understanding on the part of Labor, Labor's approach to the "negotiations" was particularly interesting. Rather than emphasizing their own position of strength relative to the weak position of Management, a powerful but potentially dangerous tactic,
Labor attempted to upgrade or bolster Management's position. This bolstering frequently involved suggestions as to the ease with which Management's position could be strengthened via small price increases, plant efficiency programs, increased labor-management cooperation, etc. In the context of real-world negotiations, it would be interesting to determine whether or not emphasis on the weakness of their own position is a bargaining strategy commonly employed by "Management", as well as the extent to which bolstering of the other party's weak position takes place. Also, it would be instructive to explore the extent to which "Management's" position, as opposed to the position taken by "Labor", is a dominant theme of real negotiations.

**Arguments and degree of determination:** One approach to understanding the way in which "Labor" and "Management" perceive their respective positions or roles in a bargaining relationship is to consider the kinds of arguments each presents and the degree of determination with which supportive statements are made. Arguments were separated into those based on facts which can be verified (e.g., "There has been a definite increase in the costs of distribution of our product . . . ") and those based on the way a person thinks things should be, or will be, in the future (e.g., "We'd like to better our position in life so that our children and our families can enjoy the things we are working for."). These were termed factual arguments and purposive arguments respectively. The degree of determination with which a statement was made was coded as follows: those statements which implied no other outcome than the one proposed were considered to reflect high determination and were termed definite statements (e.g., "We can tell you right at the outset that 12% would be
right out of the question."), while those which acknowledged the possibility of alternative outcomes were considered to reflect low determination and were termed tentative statements (e.g., "We'll back off a little ... we're flexible."). Labor was observed to employ more purposive than factual arguments, while Management made equal use of both types of argument. In classifying the arguments made by Labor, 69% of these were considered purposive and 31% were considered factual (p<.02); 47% of Management's arguments were considered purposive and 53% were considered factual. In addition, both Labor and Management made more definite than tentative statements in support of their arguments. In classifying these statements for Labor, 58% were considered definite and 42% were considered tentative (p<.05); 64% of Management's statements were considered definite and 36% were considered tentative (p<.02).

Examining the verbatim protocols of real-world labor negotiations, Haire (1955) observed that "Management's" position was characterized by factual arguments and definite statements while "Labor's" position was characterized by purposive arguments and tentative statements (underlined findings were observed in the present study). He interpreted this as evidence for coherent role perceptions by the participants in a bargaining relationship, suggesting a perception of relatively little power and autonomy by "Labor" and one of greater power and autonomy by "Management". Although the present results are similar to Haire's, the findings of the two studies are not entirely consistent. It is certainly not apparent from the present results that perceptions of the balance of power and autonomy are heavily weighted in favor of "Management". Unfortunately, there are obvious difficulties in generalizing role perceptions from
either of these studies to the specific bargaining relationship of concern here, that of "Labor" and "Management" in the province of British Columbia. In the present bargaining task, the position in which Management found themselves was a difficult one in that they were faced with the problem of negotiating a wage settlement in light of a very restrictive "profit picture" (by merely maintaining the existing wage for the coming year, an unlikely possibility, Management would suffer a decline in their return on invested capital from 7% to 5%). As a result, Management may have been forced to resort to a more purposive presentation of their proposals than would normally be the case in the real world, emphasizing the kind of profits they would like to realize, or even need to realize, in order to meet wage demands. Similarly, recognizing the difficult bargaining position in which Management was placed, Labor may have perceived their own position as one of relative strength, enabling them to express their arguments in a more determined manner than would normally be the case in the real world. For this reason then, it is possible that Haire's results obtained from real-world bargaining protocols allow a more accurate assessment of role perceptions in labor-management relationships in general, than do the present results obtained from simulated bargaining protocols based on what may be an atypical bargaining situation. On the other hand, bargaining relationships observed by Haire in the San Francisco Bay area in the early 1950's may have little in common with bargaining relationships existing in British Columbia in the late 1960's. Consequently, analysis of the protocols of real negotiations in British Columbia is regarded as an appropriate step towards clarifying the way in which "Labor" and "Management" perceive their respective roles in this latter bargaining
relationship. At the same time this would provide some information as to the validity of inferences drawn from the laboratory bargaining behavior observed in the present study.

Exchange of information: During the bargaining sessions, a considerable amount of time was devoted to requests for and offers of information.\textsuperscript{22} It was observed that Management offered information more frequently than they requested it, while Labor made as many requests as offers. In classifying the informational statements directed to Labor by Management, 61% of these were offers of information and 39% were requests for information (p<.05); of the statements directed to Management by Labor, 57% were offers of information and 43% were requests for information. Informational statements were coded as reflecting either facts or how a party felt about something. These statements were termed data information statements and attitude information statements respectively. In requesting information from Labor, Management requested attitude information (e.g., "Would it change your thinking very much if you knew what our profit really was last year?") more frequently than data information (e.g., "What information do you have in this report (concerning Management's profits)?"). On the other hand, Management offered data information (e.g., "... our actual profits last year were in the order of 7%.") more frequently than attitude information (e.g., "... we are not too impressed with the description of the realism of your offer."). In classifying the requests made by

\textsuperscript{22}"Offers" of information included both that information which was spontaneously presented to the other party as well as information provided in response to requests for information by the other party. The majority of information offered was spontaneous in nature.
Management, 66% of these were judged to be requests for attitude information and 34% were judged to be requests for data information \((p<.05)\); of the offers made by Management, 30% were offers of attitude information and 70% were offers of data information \((p<.02)\). Labor requested both kinds of information from Management with equal frequency as well as offering both with equal frequency. In classifying the requests made by Labor, 42% of these were judged to be requests for attitude information and 58% were judged to be requests for data information; of the offers made by Labor, 60% were offers of attitude information and 40% were offers of data information.

The findings concerning the exchange of information may reflect a basic characteristics of real-world bargaining relationships, as opposed to particular negotiating tactics which the participants adopt by choice. Possession by "Management" of most of the information of a factual or statistical nature is likely to be an invariant feature in most negotiations. The present findings suggest that "Management's" approach is one of communicating this kind of information to "Labor", and requesting feedback from them about attitudes and attitude changes stimulated by the information. (It should also be noted that the active probing of Labor's attitudes by Management during "negotiations" may partially explain the slightly greater accuracy demonstrated by management representatives in assessing the personal opinions of individual members of the other party. Recall that the final administration of the Opinion Questionnaire on which these assessments were made followed the bargaining sessions.)

Threats and attacks: Statements of a threatening nature were made infrequently during "negotiations", with neither party employing this kind
of statement more frequently than the other. Of all the threatening statements, 54% of these were made by Labor and 46% were made by Management. When they did occur, Labor tended to employ threats of a less subtle nature than those made by Management (e.g., "If we (Labor) go out on the bricks then you're likely to lose . . . we wouldn't go back for less than 30¢ and we'd increase it back to the original figure of 12% (38¢) before we went back. Don't forget that."); "We (Management) have been in business for a long time . . . we're both getting on into middle age and we could quite easily--be quite happy to--liquidate the company and take our profits and live in reasonably luxurious conditions."). In classifying the threats made by Management, 86% of these were considered subtle and 14% were considered to be of a more blatant nature (p < .02); 54% of Labor's threats were considered subtle and 46% were considered blatant.

The term "attack" usually implies some action which involves hostile intent towards another person or group. This is not the meaning intended here. In the present context the term refers to a response to arguments made by the other party in which some scepticism or lack of credibility is implied. Labor was observed to attack Management more frequently than Management attacked Labor. Of all the attacking statements, 66% of these were made by Labor and 34% were made by Management (p < .02). Attacks were coded according to whether they were directed towards the actual position taken by a party (e.g., "I am just wondering where you get this fantastic profit figure of $20,000 based on a 12% increase.") or towards the good faith, sincerity, or integrity of the party (e.g., "I think you're beating the drum, you're asking for the moon, and I think you're being
quite unrealistic in terms of the economy of the company."). Although statements of this nature occurred frequently during "negotiations", they were directed towards the position taken by the other party more frequently than towards the good faith of the other party by both Management and Labor. In classifying the attacks made by Management, 81% of these were judged to be directed towards Labor's position and 19% were judged to be directed towards Labor's good faith (p<.05); 76% of Labor's attack were directed towards Management's position and 24% were directed towards Management's good faith (p<.01). While these results show that Labor does most of the attacking, they are not entirely consistent with Haire's finding that "Management" tends to attack "Labor's" position while "Labor" attacks "Management's" good faith. (The possibility exists that the difficult bargaining position that Management was forced to take in the present study was more susceptible to attack by Labor than were the positions taken by "Management" in the real-world negotiations observed by Haire. As a consequence, there may have been little need or incentive for Labor to concentrate an attack on Management's good faith.) The results do indicate that "negotiations" tended to be conducted in an atmosphere of cordiality, with the lower incidence of blatant threats and attacking statements by Management suggesting that this party was somewhat more concerned with maintaining such an atmosphere. It might prove interesting to determine the extent to which the laboratory setting was a contributing factor here.

Shifting of responsibility: Labor was observed to employ more statements than did Management which involved the shifting of responsibility for decisions (e.g., "The men will not agree to hold the status quo and I
very much doubt that they will accept anything below $3.40. This is our problem."). Of all the statements which implied a shift of responsibility for decisions, 86% of these were made by Labor and 14% were made by Management (p<.01). This finding is consistent with Haire's contention that labor negotiators perceive their role as one of relatively little power and autonomy. However, when considered in the light of arguments presented earlier, an interpretation of this particular finding in the context of role perceptions seems inappropriate. Recall the contention that one important tactic often employed by "Labor" involves an attempt to present to "Management" the image of a united labor front which is in support of their demands. Presumably, "Labor" regards this tactic as one which provides some leverage or power in the bargaining relationship. Certainly the bargaining position of "Labor" is likely to be enhanced by the existence of a group which threatens to discontinue service to "Management" should the elected representatives of this group fail to achieve its demands. Consistent with this reasoning, the act of shifting responsibility for decision-making to the union membership is one way in which a labor representative can assert this power, or direct "Management's" attention to it, during negotiations. Although this behavior involves a denial of autonomy, its significance might well be of a tactical nature rather than as an indicator of the way in which an $ perceives his role. Finally, structural constraints upon the decision-making process must be recognized. Once formal negotiations have begun, the decisions of a union membership appear to play a more prominent role in the negotiation of settlements than do decisions of company directors and shareholders (these were the three agents onto which responsibility for decisions was most frequently
shifted). For example, negotiated contracts are ratified by union members but not by company directors and shareholders. Consequently, the shifting of responsibility for decision-making by Labor in the present study is regarded as a bargaining tactic which was convenient for Labor to adopt due to the structural or formal nature of the bargaining process.

**Chronology of events:** Using the transcribed records of the bargaining sessions, an attempt was made to summarize the sequence of verbal events which occurred during "negotiations" in each of the eight sessions. These summaries appear in the following pages. As an example of the way in which a summary is intended to be read, consider the sequence of events which took place in the first session (group 1): Labor opened the negotiations by proposing an hourly increase of 38¢; in reply, Management contended that pending plant expansion made such a demand "out of the question". Labor, in turn, noted that Management would make a reasonable profit at the proposed wage. When Management then suggested that the demand was arbitrary, the issue of a strike and its effects on profit was raised by Labor . . . bargaining proceeded in this fashion until Management made what was termed an "absolute final offer" of a 20¢ hourly increase. This offer was then accepted by Labor, bringing formal "negotiations" to a close. For purposes of clarity wage demands by Labor and offers by Management are underlined in each summary.
SEQUENCE OF EVENTS: GROUP 1

LABOR (n=2)

- proposes an hourly increase of 38¢.
- notes that Management will make a reasonable profit at this wage.
- observes that, although Labor does not want to close the plant, a strike would have immediate and severe effects on profits.
- asks what Management considers to be a reasonable increase.
- observes that Labor's demand is flexible.
- contends that the men won't accept 10¢.
- lowers demand to 30¢, observing that a slight price increase will cover the cost to Management.
- notes that a strike would "break" the company but Labor doesn't want that.
- reiterates the price increase solution and notes that in the event of a strike Labor would return to the original 38¢ demand.
- argues that this company is a leader in the industry, allowing it more freedom to raise wages and prices.
- comments that a strike would put the company out of business quickly.
- accepts, noting that this proposal will require a lot of selling to the membership.

MANAGEMENT (n=2)

- contends that plant expansion is pending and 38¢ is out of the question.
- suggests that Labor's demand is arbitrary.
- states that Management is willing to increase wages, but not by 38¢.
- requests recess to discuss.
- withdraws to discuss
- comments on satisfactory relationship with workers to date, present wage trends, alternative employment possibilities, and offers a 10¢ increase.
- asks if Labor realizes what this wage increase would do to the economy of the company. States that Management must have a profit consistent with what they have realized in the past.
- suggests that Labor is being unrealistic, and not taking the economy of the company into consideration.
- withdraws to discuss
- contends that the board of directors will not accept 30¢, and Management wants their poor profit picture and pending expansion investment communicated to the union membership.
- offers 20¢ as an "absolute final offer", recognizing that this means operating at a reduced profit level next year.
SEQUENCE OF EVENTS: GROUP 2

LABOR (n=2)

- proposes an hourly increase of 27c, recognizing that this will decrease Management's profit slightly.

- states that the rising cost of living makes maintaining the status quo unfeasible.

- lowers demand to 20c.

- observes that Labor is not about to 'subsidize' any operation.

- argues that the men won't continue to work for the present wage, and that if the company cannot realize more profit they (the workers) will go elsewhere.

- suggests the possibility of an indefinite strike if Management persists in maintaining the present wage rate.

- states that the offer will be considered.

MANAGEMENT (n=2)

- observes that an additional cost of $10,000 enters into the picture this year and in order to recover this a wage cut of 40c is in order.

- notes that maintaining the present wage rates will lower profits by $10,000 for the coming year. Suggests that an increase of 27c will allow Management to realize only 4% on invested capital and that this is too little.

- contends that if Labor appreciates the difficult financial position of Management, then this is a good starting point.

- notes that the time-cost factor is a real incentive to reach agreement.

- suggests that Management views a 5% return on capital as reasonable.

- argues that maintaining the present contract will allow Management to realize the necessary 5% return on invested capital.

- reiterates the time-cost incentive to reach agreement.

- notes that the 20c demand would put the company back almost eight years.

- suggests that a reasonable approach is called for so that everyone's security of employment is maintained.

- observes that just as Labor doesn't want to go backward in wages, so Management doesn't want to go backward in profits.

- reiterates the time-cost incentive to reach agreement.

- contents the Labor should think of the company, not just the wage they can sell to the members, because Labor's present position could "close the business".

- proposes 20c over 2 years.

- proposes 12c in a 1-year agreement based on cost of living increase.
SEQUENCE OF EVENTS: GROUP 3

LABOR (n=2)

- proposes an hourly increase of 25c based on (1) the "financial picture of the union" and (2) wage rates in comparable industries. Notes that the cost of living is rising and a better life for the worker's family is important.

- states that productivity is a problem for Management, not Labor.

- raises the issue of the rising cost of living.

- implies that if this company can't keep up with the buoyant economy it should shut down. Argues that Labor shouldn't be expected to pay for mismanagement.

- reiterates that it is up to Management to solve the present problems.

- states that Labor estimates last year's profits to be $50,000.

- reiterates previous arguments about need for "better life" and Management's responsibility for solving its problem. - WITHDRAWS TO DISCUSS

- refuses this offer and proposes 22c.

- replies that the men won't accept less than 22c.

- WITHDRAWS TO DISCUSS

- proposes 21c.

MANAGEMENT (n=2)

- notes that Management feels the same way about a "better life" and this requires a reasonable return on capital. States that 25c would be too "heavy" this year due to increased distribution and raw material costs.

- observes that layoffs would result if the present profit picture cannot be maintained.

- notes that present profits are less than can be realized by standard investment procedures, contends that money must be put back into the business to increase productivity.

- proposes maintaining the present wage rate, noting that Management is willing to hold the line on profits if Labor will hold the line on wages. Suggests that a small wage increase might be granted.

- offers a 10c increase.

- states that both parties must cooperate or there will be no jobs for either party.

- states that Management regards a profit of $25,000 as a fair return, noting that they are being very candid with Labor here.

- replies that the $50,000 figure is incorrect.

- offers 15c based on cost of living increase.

- observes that agreement seems near. Proposes 20c as "centre ground" between the 15c offer and the original 25c demand.

- observes that negotiations are close to breaking down.

- accepts.
SEQUENCE OF EVENTS: GROUP 5

LABOR (n=1)

-criticizes Management's "negative" approach and questions the accuracy of their stated profit position. Proposes a 30¢ increase, in line with regional and national settlements.

-notes that the workers have upgraded their skills and cooperated in the past and that 30¢ is the incentive for this behavior to continue. States that Labor is not in favor of "horse trading" and as a consequence is firm on the 30¢ proposal.

-states that the men won't accept a wage cut and argues that a 30¢ increase can be met by technological innovations.

-refuses.

-raises the issue of rising cost of living and need for the workers' families to keep up with the rest of the community, especially in education.

-argues that the workers can't even afford to purchase the product they produce.

-chides Management for adopting a "negative attitude" to the negotiations.

-suggests that in the light of their past resourcefulness, Management's pessimism is unfounded. States that costs are a problem for Management not Labor.

-contends that in the light of the buoyant economy the men won't accept a wage cut.

MANAGEMENT (n=2)

-proposes an hourly wage decrease of 20¢ in view of Management's poor profit position.

-notes precedent for wage decreases in their relationship and reiterates poor profit position.

-argues that a wage cut now will render the long-term position of both company and employees more secure.

-refutes the technological innovations argument and proposes maintaining the present wage rate.

-noted that Management has not increased the rent on employees' houses.

-WITHDRAWS TO DISCUSS

-noted increased cost of raw materials and raises the possibility of liquidating the company.

-WITHDRAWS TO DISCUSS, asking Labor to reconsider its position in the interim

-expresses concern that Labor didn't know about Management's cost problem, implying that Labor has not done its "homework".

-reiterates the precedent for a wage cut.

-offers 10¢ plus a cost of living bonus, both based on increase in consumer price index.
SEQUENCE OF EVENTS: GROUP 5 (continued)

LABOR (n=1)  MANAGEMENT (n=2)

-disagrees with this bonus principle and demands "firm and committed hourly rate".

-comments on the enterprising and resourceful manner in which Management has met cost problems in the past and expresses confidence in their ability to do so now.

-suggests that Management should have foreseen this problem and done something about it earlier.

-refuses to commit the workers to arbitration proceedings.

-notes that the union's proposal is not a "padded" one.

-chides Management for "berating" Labor's unwillingness to "horse-trade". -states that Labor appears to have a "closed mind".

-refuses this offer, commenting, "Well, we'll see you at conciliation." -makes "final offer" of 16c.

-notes that the "freshness" of Labor's approach to bargaining seems to have escaped Management.

-criticizes Labor's unfamiliarity with the unstable nature of the industry, reiterating the argument of increased cost of raw materials.

-states that there was no way of predicting this cost problem.

-criticizes Labor's lack of information again. Suggests arbitration proceedings are appropriate and states that Management will abide by any decision made thereby.

-contains that Labor is not willing to bargain.

-states that Labor appears to have a "closed mind".

-one management representative leaves, stating that he is late for an appointment.
SEQUENCE OF EVENTS: GROUP 7

LABOR (n=1) MANAGEMENT (n=2)

-recognizes that Management's profit picture is not a good one; at the same time contends that the workers must have a wage increase.

-proposes an hourly increase of 14½¢ in each year of a 2-year agreement, based on the cost of living increase. Notes that this leaves no room for bargaining downwards and that shaving of this figure will lead to rejection and possible strike.

-contends that Labor is not firm on the 2-year contract proposal, but felt this would give Management a better opportunity to project their costs.

-agrees with Labor's assessment of Management's unfortunate profit picture.

-shows interest in a 2-year agreement.

-recognizes that the workers need an increase to keep up with the rest of the community.

-WITHDRAWS TO DISCUSS

-notes that Labor's proposal cannot be accepted outright; instead, offers increases on a 6-month interval basis to provide a "breathing space" for Management at the present time—10¢ in the 1st 6 months, 4½¢ in the 2nd 6 months, 10¢ in the 3rd 6 months, and 4½¢ in the 4th 6 months.

-agrees that this is reasonable since the largest amount comes in the first half of each year. States that the offer will be recommended to the membership.
SEQUENCE OF EVENTS: GROUP 8

LABOR (n=1)

- proposes hourly increase of 90¢ (based on a misinterpretation of the projected profit analysis which was subsequently corrected by E).

- suggests Management inefficiency as possible cause and observes that Labor has never agreed to subsidize inefficiency.

- raises the question, "Should we put this operation out of business painlessly?"

- proposes 50¢ increase as an incentive to increase output to overcome the present difficulty. Notes that this is a drop of 40¢ from the original demand.

- refuses to entertain this policy and raises the question of a 2-year agreement, tentatively suggesting 32¢ in 1st year and 27¢ in the 2nd year.

- observes that this offer is a step in the right direction, but unacceptable.

- comments that if the two parties cannot move closer an impasse is near.

- recognizes Management's difficult position and offers a formula of 22¢ in the 1st year and 27¢ in the 2nd year.

- states that in the "spirit of compromise" Labor will accept 18¢ in the 1st year and 18¢ in the 2nd year.

MANAGEMENT (n=2)

- comments on Management's poor profit picture due to increased operating costs.

- contends that the inefficiency argument does not apply to this company.

- states that Management wants a year of "breathing space", hoping for an upswing in market conditions next year. Proposes "holding the line" on wages and notes a precedent for this in their relationship.

- argues that Management must have a reasonable return (4%) on invested capital, and this requires holding the line on wages.

- shows interest in a 2-year agreement, observing that 2 years of labor peace would be desirable (WITHDRAWS TO DISCUSS).

- proposes 10¢ in the 1st year and 12¢ in the 2nd year.

- contends that the 50¢ demand must be drastically reduced or their will be little basis for further discussion.

- WITHDRAWS TO DISCUSS

- observes that the shareholders will not accept this demand, and as a "final offer" proposes 16¢ in the 1st year and 20¢ in the 2nd year, based on an industry precedent.

- accepts, remarking that Management will be fortunate to stay in business next year.
SEQUENCE OF EVENTS: GROUP 9

LABOR (n=2)

- proposes hourly increase of 30¢ based on (1) pattern of settlements in B.C. and (2) past profits, estimated at 10% of company assets by Labor.

- suggests a product modification that might make the company more competitive.

- states that more specific information on past profits is required in order to judge whether or not the present problem is temporary. States that Labor wants to help restore the company's competitive market position.

- reiterates Labor's desire to look at the books especially in light of "high" profits in previous years.

- contends that no commitment can be made before seeing the books. Observes that Labor is willing to cooperate.

- suggests that something more than 20¢ might be the inducement necessary for increased productivity.

MANAGEMENT (n=2)

- suggests that Management will have to open its books and show Labor that profits were less than 10% of assets.

- states that a test sales situation showed a price increase would not increase profits, observes that selling the business is a real possibility.

- suggests two alternatives for realizing adequate return (6%) on invested capital: (1) lower wages by 20¢/hour, or (2) increase wages by 20¢ while reducing staff from 10 to 9 employees.

- notes that Management does not expect Labor to subsidize the business, but that their help is needed in terms of ideas for increased productivity at the present time.

- contends that costs of retooling would be prohibitive.

- states that Management doesn't intend to "horse trade" as in the past, but rather will open the books to Labor.

- observes that the staff reduction would be through retirement rather than a layoff.

- stresses need for increased productivity.

- asks whether or not Labor agrees that Management should expect to realize 6% on invested capital, and that the 20¢ offer is fair.

- suggests adjournment and sets meeting for next day to open the books. States that Management is concerned with the worker's attitudes and for this reason Management doesn't want to hold anything back.
SEQUENCE OF EVENTS: GROUP 10

LABOR (n=1)

- proposes hourly increase of 30c
- observes that Management's problems are appreciated, but the rising cost of living makes a wage cut unacceptable.
- states that the "liberal" figure of 30c is negotiable.
- comments, "When shall we take a strike vote?"
- refers to rising living costs.
- questions soundness of this proposal, stating disagreement with this principle.
- states that Labor is willing to consider a 2-year agreement. Asks what Management's profit was last year.
- observes that Management has made no "direct offer" so far, and all Labor can do is return this information to the membership.
- contends that this is "nothing more than a slap in the face" in light of settlements in comparable industries. States that Labor will shave some off the 30c demand, but nothing like that.
- suggests 40c over 2 years.
- replies that Labor's "final suggestion" is 10c in the 1st 6 months, 10c in the 2nd 6 months and 20c in the 2nd year.

MANAGEMENT (n=2)

- states that increases in raw material and distribution costs force Management to request a 20c reduction in present rates.
- contends that Management needs "breathing space" and appeals to Labor to make the employees aware of Management's difficulties.
- withdraws to discuss
- states desire to avoid a strike
- contends that just maintaining present wage rates will cause the company to go backwards, but Management is willing to "hold the line on wages" for the coming year.
- suggests maintaining present contract with a "wage reopener" in 6 months subject to conciliation and arbitration in the hope that the company's market position will improve in the next 6 months.
- agrees that it is best to settle now.
- contends that the problem is one of convincing the workers of Management's problems, which initially involves convincing their representative.
- replies $35,000 (the correct figure), and notes that Management could make more by selling the business and putting the money in the bank.
- proposes a 10c increase as the most Management can offer.
- asks what Labor's position is.
- asks if 10c in 1st year and 30c in 2nd year is acceptable.
- accepts.
Overview: Reviewing the sequence of events which took place in each of the eight bargaining sessions, it is apparent that considerable similarity exists in the approaches taken by members of a party from one session to the next. In view of this consistency, construction of a general picture of the bargaining sessions, based upon both the results of the content analysis and the information contained in the summaries, is appropriate. Although we recognize that certain behaviors were unique to each session, and that these behaviors played an important role in determining the progress and eventual outcome of particular sessions, the following overview of the "negotiations" is considered to do no injustice to the data.

The dominant theme of the "negotiations", as indicated by the attention it was given by both labor and management representatives, was the position taken by Management on the wage issue. Included in this position were initial proposals of a wage reduction, renewal of the existing wage rate, or the granting of a slight wage increase. Management attempted to justify these proposals by arguing that unforeseen increases in raw material and distribution costs would make it especially difficult to meet traditional wage demands in the coming year. It was contended that realization of a "reasonable return" on invested capital was critical, and this required that Management be allowed a "breathing space" in the year ahead. This argument frequently involved a direct appeal for the sympathetic understanding and cooperation of Labor (the author regarded this approach as bargaining from a position of weakness rather than from a position of strength). The information which Management imparted during the "negotiations" was mainly of a factual or statistical nature,
emphasizing past profits, present costs, and projected profiles. In return they requested feedback from Labor primarily in terms of the attitudes which this information engendered concerning the present difficulties facing Management.

In response to the proposals, Labor expressed some scepticism about the company's financial difficulties as presented by Management. It was suggested that these difficulties were not as serious as had been envisioned by Management and frequently Labor proposed specific methods for overcoming the problems. These proposals involved suggestions as to the ease with which Management's problems could be overcome via such measures as small price increases, plant efficiency programs, and increased labor-management cooperation. In addition, a firm stand was taken against Management's plea for the necessary "reasonable return" on invested capital, based on the argument that Labor could not be expected to subsidize Management "inefficiency". In presenting their own position, Labor emphasized how they would like things to be, or how they thought things ought to be. Initial demands tended to be in the area of a 10% yearly wage increase, with rising costs of living and the workers' right to share in the "good life" cited as grounds for these demands. In terms of a possible settlement, Labor frequently observed that their demands represented a wage which the workers themselves were requesting and that responsibility for accepting any offer from Management was the prerogative of these workers rather than their elected representatives.

Few statements of a threatening nature were made during the "negotiations"; those by Labor consisted of straightforward references to the likelihood of a strike, whereas Management tended to make more subtle
remarks about the possibility of selling the business. In addition, attacks or questions which implied a lack of credibility in the arguments presented by the other party were directed mainly towards actual bargaining positions taken, rather than towards the integrity of the other party. Such questions were expressed more frequently by Labor. Finally, although both Labor and Management expressed their positions in a manner which suggested a high degree of determination or finality, the process of mutual compromise on the wage issue was apparent, with eventual settlements falling in the area of a 6% yearly increase.
SUMMARY AND CONCLUSIONS

As an alternative to formal game research, the present study explored a particular real-world conflict situation, the labor-management bargaining relationship. The study was designed to provide information concerning (i) ways in which "Labor" and "Management" perceive the bargaining relationship, as well as (ii) approaches to negotiations adopted by each party.

Subjects were 19 management representatives and 15 labor representatives, all with formal bargaining experience in labor-management negotiations. Representatives of both parties participated in 3- and 4-person groups in sessions which lasted approximately 3 hours. Most of the perceptual information was collected using an opinion questionnaire which dealt with specific aspects of labor relations, and semantic differential-type scales. On the questionnaire, subjects indicated the opinions which they thought their own party, in general, held, as well as the opinions they thought the other party, in general, held. On the scales, subjects rated their own party, the other party, and indicated how they thought their own party would be rated by the other party. Negotiating information was obtained using a simulated bargaining problem which cast management representatives in the role of business partners and labor representatives as the elected officials representing employees of the business. The two parties "negotiated" a wage settlement on the basis of a projected wage and profit analysis adapted from Sawyer's bargaining board technique. Certain summary statistical features of the bargaining session were recorded; also, a formal content analysis was conducted, based on audio transcripts. Finally, at the conclusion of each bargaining session, the questionnaire was readministered for the purposes of assessing personal
opinions and perceptual accuracy. On this second administration, labor and management representatives indicated their own opinions as well as the opinions they thought each of the other representatives held.

In addition to providing information of a purely descriptive nature, the tasks employed allowed certain comparisons to be made within each sample and between the two samples (i.e., the labor sample and the management sample). In the remainder of this chapter, the major results and implications of these comparisons will be reviewed.

Some indirect support for the notion that "Labor" and "Management" value tension and conflict differently is provided by the finding that Labor was more likely to perceive the two parties as holding opposite opinions on mutually relevant issues. Specifically, this finding is consistent with the argument that "Labor" should prefer conflict to be sustained, at least at some level, whereas "Management" should prefer the absence of such conflict. One implication of this finding is that the symmetric or mirror-like structure and assumptions of the Prisoner's Dilemma game do not accurately represent the labor-management relationship. In particular, the traditional assumption that both parties value highly that outcome which resolves the conflict, is not entirely appropriate in this context.

The observation that Labor and Management responded differently when asked to make the same kinds of perceptual judgements suggests that the procedure adopted in this study may have some practical applications. For example, it might be useful to administer the present or similar questionnaires to labor and management representatives involved in different bargaining relationships, and at different times during the
tenure of contracts. Comparisons of the kind made in the present study may have some predictive value in terms of a crude index of the level of tension, or as a means of isolating potential sources of conflict and its resolution.

When the practical problem of displacing misperceptions with more accurate perceptions is considered, the tendency to underestimate the favorable manner (or to overestimate the inimical manner) in which one's party is evaluated by the other, is potentially important. In particular, the introduction of credible information concerning the existence of relatively favorable dispositions might be expected to have a mitigating effect upon the climate of an extended bargaining relationship. However, difficulties can be anticipated should either party attempt to convey such information. Since both view the other as the less honest and less trustworthy party in the relationship, attempts to communicate actual dispositions may be viewed as acts of deception (this communication problem would be singularly difficult for "Management" to overcome since "Labor's" misperceptions may serve a function in sustaining tension and conflict).

Other perceptual findings indicated that a labor representative is likely to see other members of his own reference group ("Labor" in general) as holding opinions similar to his, while a management representative is less likely to see other members of his reference group ("Management" in general) as sharing his opinions. Evidence from the present samples of "Labor" and "Management" did not support a distinction between the two parties on this basis. There was no greater consensus among the personal opinions of labor representatives than there was among the personal opinions of management representatives; nor was there any more marked agreement among labor representatives than among management representatives as to
just what opinions are held by the majority of their own colleagues. It was tentatively concluded that if exogenous "party lines" do exist, the "Labor party line" is no more well defined for labor representatives than any "Management party line" is for management representatives.

The major findings concerning verbal interaction during "negotiations" are reiterated below:

(1) Both parties tended to focus attention upon Management's position.

(2) Management presented their position primarily as one of difficulty or weakness rather than one of strength, whereas Labor gave equal emphasis to both aspects of their position.

(3) Labor's position was characterized by purposive rather than factual arguments, whereas Management made equal use of both types of argument.

(4) Both parties expressed statements with a high degree of determination or finality as opposed to flexibility.

(5) Labor was more likely to express doubt concerning credibility of the other party.

(6) Both parties were more likely to express scepticism concerning the other party's bargaining position than their integrity.

(7) Management imparted primarily factual or statistical information as opposed to attitudinal information, whereas Labor imparted both kinds of information to the same extent.

(8) Management requested primarily attitudinal information as opposed to factual or statistical information, whereas Labor requested both kinds of information to the same extent.

(9) Labor was more likely to shift responsibility for decisions
(to the membership).

In general, these findings are viewed as reflecting constraints unique to the labor-management relationship. For example, possession of extensive factual or statistical information is a necessary requisite to, and consequence of, managing a business. For this reason "Management" is likely predisposed to a relatively factual or statistical presentation of their position in negotiations. Similarly, the desire to change an existing situation (in particular, the desire to obtain greater compensation for one's effort), might be expected to predispose "Labor" to a relatively purposive presentation of their position. The kind of information that is exchanged during negotiations then, is somewhat limited by various constraints of this nature.

While the element of constraint is apparent in most of the findings, certain negotiating behaviors appear to have an explicit strategic component. More precisely, even though structural features of the labor-management relationship make it more likely for one party to engage in a particular kind of negotiating behavior, that behavior could conceivably be adopted by either party. In this regard, it would be important to confirm the existence in real negotiations of such behaviors as emphasizing the weakness of one's position ("crying poor"), manipulating negotiations so that the position of one party is the dominant theme, and shifting responsibility for decisions. Future research might then be directed towards exploring the tactical significance of these behaviors in real negotiations, as well as in the laboratory context, possibly with the aid of various bargaining boards and communication restraints.
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Ring, K. Experimental social psychology: some sober questions about some frivolous values. *Journal of Experimental Social Psychology*, 1967, 3, 113-123.


Sawyer, J. Communication of empathy following the assassination of Dr. Martin Luther King. Unpublished manuscript, 1968.


APPENDICES
### APPENDIX A: OPINION QUESTIONNAIRE

<table>
<thead>
<tr>
<th>AGREE</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>M L</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>S M L₁ L₂</td>
<td></td>
</tr>
<tr>
<td>L₂</td>
<td>S M L₁</td>
</tr>
</tbody>
</table>

Examples given on first administration:

1. Mutual cooperation between management and organized labor is a desirable state of affairs.

2. Much of the conflict between labor and management is avoidable.

Examples given on second administration:

1. Mutual cooperation between management and organized labor is a desirable state of affairs.

2. Much of the conflict between labor and management is avoidable.

1. The need to look good to one's constituents plays a very important role in determining a labour representative's bargaining behavior.

2. In contract negotiations management interprets the goals of labour fairly accurately.

3. Government should in no way interfere with labour's right to strike.

4. In an industry in "the best of all possible worlds" there would be no need for unions.

5. Most strikes are precipitated by inflexible management.

6. In negotiating a settlement with the other party I would like to be completely honest, but I am afraid that my honesty would be taken advantage of.

7. Those officials of the Fisherman and Allied Workers Union now serving prison terms should be released immediately.

8. Management is genuinely concerned with the needs of the worker.

9. In contract negotiations, one should seek to acquire every possible advantage over the other party.
10. In bargaining disputes, labour rarely seems to appreciate the problems facing management.

11. The union shop places undesirable barriers in the way of communication between management and employees.

12. The closed shop places undesirable barriers in the way of communication between management and employees.

13. I think that a frank interchange of ideas between local labour leaders and top management personnel could alleviate much of the tension that exists in industrial relations today.

14. In general, labour-management relations could be improved.

15. Unrealistic opening offers and demands are an essential part of the bargaining process.

16. Labour is more likely to take advantage of contract loopholes than is management.

17. A good labour representative can usually do what he thinks is right in labour-management bargaining situations and not worry about looking good to his constituents.

18. Sometimes the real needs of the worker are overlooked by the union officials who represent him.

19. Government should in no way interfere with management's right to lock out.

20. Labour people are more sensitive to social injustices than are management people.

21. The provincial labour laws favor management.

22. The right to strike is an indispensible part of the labour-management relationship.

23. Persons who think a state of mutual trust can be established between labour and management are being unrealistic.

24. Most strikes are precipitated by inflexible labour.

25. The provincial labour laws favor labour.
APPENDIX B: SEMANTIC DIFFERENTIAL-TYPE SCALES

Heading: either LABOUR or MANAGEMENT

-3 -2 -1 0 +1 +2 +3

bad  good

suspicious  trusting

weak  strong

competitive  cooperative

dishonest  honest

untrustworthy  trustworthy
APPENDIX C: 30-ITEM F-SCALE

The following is a questionnaire concerning what people think and feel about a number of important social and personal questions. The best answer to each statement below is your "personal opinion". We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement on the answer sheet according to how much you agree or disagree with it. Please mark every one.

+1 : I agree a little  
-1 : I disagree a little  
+2 : I agree on the whole  
-2 : I disagree on the whole  
+3 : I agree very much  
-3 : I disagree very much

Go right ahead now on the questionnaire.

1. Obedience and respect for authority are the most important virtues children should learn.

2. No weakness or difficulty can hold us back if we have enough will power.

3. Science has its place, but there are many important things that can never possibly be understood by the human mind.

4. Human nature being what it is, there will always be war and conflict.

5. Every person should have complete faith in some supernatural power whose decisions he obeys without question.

6. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.

7. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.

8. What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.

9. Some people are born with an urge to jump from high places.

10. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them.

11. An insult to our honor should always be punished.

12. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
13. It is best to use some prewar authorities in Germany to keep order and prevent chaos.

14. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.

15. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.

16. People can be divided into two distinct classes: the weak and the strong.

17. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.

18. Some day it will probably be shown that astrology can explain a lot of things.

19. The true American way of life is disappearing so fast that force may be necessary to preserve it.

20. Nowadays more and more people are prying into matters that should remain personal and private.

21. Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world.

22. Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feebleminded people.

23. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.

24. If people would talk less and work more, everybody would be better off.

25. Most people don't realize how much our lives are controlled by plots hatched in secret places.

26. Homosexuals are hardly better than criminals and ought to be severely punished.

27. The businessman and the manufacturer are much more important to society than the artist and the professor.

28. No sane, normal, decent person could ever think of hurting a close friend or relative.

29. Familiarity breeds contempt.

30. Nobody ever learned anything really important except through suffering.
APPENDIX D: STATEMENTS FROM THE OPINION QUESTIONNAIRE ON WHICH DIFFERENCES OF OPINION BETWEEN THE TWO PARTIES WERE MOST FREQUENTLY INDICATED

Items on which a difference was perceived by both labor and management representatives

<table>
<thead>
<tr>
<th></th>
<th>MANAGEMENT</th>
<th>LABOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Government should in no way interfere with labor's right to strike.</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>5. Most strikes are precipitated by inflexible management.</td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td>8. Management is genuinely concerned with the needs of the worker.</td>
<td>69</td>
<td>79</td>
</tr>
<tr>
<td>10. In bargaining disputes, labor rarely seems to appreciate the problems facing management.</td>
<td>74</td>
<td>86</td>
</tr>
<tr>
<td>12. The closed shop places undesirable barriers in the way of communication between management and employees.</td>
<td>95</td>
<td>86</td>
</tr>
<tr>
<td>16. Labor is more likely to take advantage of contract loopholes than is management.</td>
<td>58</td>
<td>86</td>
</tr>
<tr>
<td>21. The provincial labor laws favor management.</td>
<td>84</td>
<td>79</td>
</tr>
</tbody>
</table>

percentage of subjects who perceive a difference of opinion between "Labor" and "Management"
Items on which a difference was perceived primarily by labor representatives

11. The union shop places undesirable barriers in the way of communication between management and employees.

20. Labor people are generally more sensitive to social injustices than are management people.

22. The right to strike is an indispensable part of the labor-management relationship.

24. Most strikes are precipitated by inflexible labor.

Item on which a difference was perceived primarily by management representatives

18. Sometimes the real needs of the worker are overlooked by the union officials who represent him.

<table>
<thead>
<tr>
<th>MANAGEMENT</th>
<th>LABOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>53</td>
<td>79</td>
</tr>
<tr>
<td>21</td>
<td>71</td>
</tr>
<tr>
<td>42</td>
<td>71</td>
</tr>
<tr>
<td>68</td>
<td>43</td>
</tr>
</tbody>
</table>
APPENDIX E: STATEMENTS FROM THE OPINION QUESTIONNAIRE ON WHICH MANAGEMENT REPRESENTATIVES MOST FREQUENTLY INDICATED A PERSONAL OPINION WHICH DIFFERED FROM THE OPINION THEY THOUGHT "MANAGEMENT" IN GENERAL HOLDS

<table>
<thead>
<tr>
<th>Number of Subjects Who Indicated Different Personal and Perceived Party Opinions</th>
<th>Number of These Subjects Who Agree With the Statement</th>
<th>Number of These Subjects Who Disagree With the Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>47%</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>47%</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>37%</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>42%</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>42%</td>
<td>2</td>
</tr>
</tbody>
</table>

3. Government should in no way interfere with labor's right to strike.

4. In an industry in the "best of all possible worlds" there would be no need for unions.

6. In negotiating a settlement with the other party I would like to be completely honest, but I am afraid that my honesty would be taken advantage of.

15. Unrealistic opening offers and demands are an essential part of the bargaining process.

24. Most strikes are precipitated by inflexible labor.
APPENDIX F: STATEMENTS FROM THE OPINION QUESTIONNAIRE ON WHICH LABOR REPRESENTATIVES MOST FREQUENTLY INDICATED A PERSONAL OPINION WHICH DIFFERED FROM THE OPINION THEY THOUGHT "LABOR" IN GENERAL HOLDS

<table>
<thead>
<tr>
<th>number and corresponding percentage of subjects who indicated different personal and perceived party opinions</th>
<th>number of these subjects who agree with the statement</th>
<th>number of these subjects who disagree with the statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>7  62%*</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>5  36%</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5  36%</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>5  36%</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

2. In contract negotiations management interprets the goals of labor fairly accurately.

6. In negotiating a settlement with the other party I would like to be completely honest, but I am afraid that my honesty would be taken advantage of.

9. In contract negotiations, one should seek to acquire every possible advantage over the other party.

18. Sometimes the real needs of the worker are overlooked by the union officials who represent him.

*Only 13 of the 14 labor representatives responded to this questionnaire item.
## Appendix G: T Test Tables

1. **Ratings Given "Management" and "Labor" by Management Representatives** (page 57):

<table>
<thead>
<tr>
<th>Scale</th>
<th>df</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good-bad</td>
<td>18</td>
<td>1.75</td>
<td></td>
</tr>
<tr>
<td>Trusting-suspicious</td>
<td>18</td>
<td>4.35</td>
<td>&lt;.002</td>
</tr>
<tr>
<td>Strong-weak</td>
<td>18</td>
<td>2.52</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Honest-dishonest</td>
<td>18</td>
<td>2.18</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Trustworthy-untrustworthy</td>
<td>18</td>
<td>3.11</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

2. **Ratings Given "Management" and "Labor" by Labor Representatives** (page 57):

<table>
<thead>
<tr>
<th>Scale</th>
<th>df</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good-bad</td>
<td>14</td>
<td>2.69</td>
<td>&lt;.02</td>
</tr>
<tr>
<td>Trusting-suspicious</td>
<td>14</td>
<td>1.31</td>
<td></td>
</tr>
<tr>
<td>Strong-weak</td>
<td>14</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>Honest-dishonest</td>
<td>14</td>
<td>3.16</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Trustworthy-untrustworthy</td>
<td>14</td>
<td>3.48</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Scale</th>
<th>df</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good-bad</td>
<td>32</td>
<td>2.38</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Trusting-suspicious</td>
<td>32</td>
<td>1.55</td>
<td></td>
</tr>
<tr>
<td>Strong-weak</td>
<td>32</td>
<td>&lt;1.00</td>
<td></td>
</tr>
<tr>
<td>Honest-dishonest</td>
<td>32</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td>Trustworthy-untrustworthy</td>
<td>32</td>
<td>1.88</td>
<td></td>
</tr>
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</table>
4. RATINGS GIVEN "LABOR" BY MANAGEMENT REPRESENTATIVES AND RATINGS LABOR REPRESENTATIVES PREDICTED "LABOR" WOULD BE GIVEN BY "MANAGEMENT" (page 59):

<table>
<thead>
<tr>
<th>scale</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>good-bad</td>
<td>32</td>
<td>3.39</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>trusting-suspicious</td>
<td>32</td>
<td>&lt;1.00</td>
<td>.01</td>
</tr>
<tr>
<td>strong-weak</td>
<td>32</td>
<td>&lt;1.00</td>
<td>.01</td>
</tr>
<tr>
<td>honest-dishonest</td>
<td>32</td>
<td>2.73</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>trustworthy-untrustworthy</td>
<td>32</td>
<td>2.44</td>
<td>&lt;.02</td>
</tr>
</tbody>
</table>
APPENDIX H: CATEGORIES Employed in the Content Analysis With Examples from the Bargaining Sessions

1. factual arguments

There has been a definite increase in the costs of distribution of our product.

2. purposive arguments

We'd like to better our position in life so that our children and our families can enjoy the things we are working for.

3. reference to own position of strength

We've only had one gerbil-maker leave us in the past year . . . we certainly had no trouble replacing him.

4. reference to own position of weakness

. . . we have had an increase in our distribution cost of 30% and this has kicked us right in the rear end . . . we kind of thought we had things going on the road here . . . but . . . this has turned into a revolting development.

5. reference to other's position of strength

. . . a small increase in the price of gerbils wouldn't do any harm anywhere . . . there's other manufacturers that want to increase (the price of) their gerbils, and they're only waiting for a leader -- and you are a leader in this industry.

6. reference to other's position of weakness

Really, based on your investment, your profits aren't up to 6% on capital investment here and this isn't the best situation possible.

7. reference to pleasant mutual fate

Let's sort of take it easy and be reasonable about the thing so that we can get a proper profit picture which in the final analysis means everybody's security of employment is preserved.

8. reference to unpleasant mutual fate

If we did close down . . . in that week you would lose somewhere around $7,000. We'd certainly lose money too over that week.
9. definite statements

We can tell you right at the outset that 12% would be right out of the question.

10. tentative statements

We'll back off a little . . . we're flexible.

11. demands

. . . right now we feel that we want a 12% increase across the board.

12. offers

Well, I think we would be prepared to make an offer which would be reasonable under the circumstances of $3.30 an hour.

13. reference to time cost

We've spent half an hour . . . the time it's taking us, it's costing us a lot of money.

14. refusals

A 10c increase is nothing more than a slap in the face that this point.

15. blatant threat

If we go out on the bricks then you're likely to lose . . . we wouldn't go back for less than 30c and we'd increase it back to the original figure of 12% (38c) before we went back. Don't forget that.

16. subtle threats

We have been in business for a long time. . . we're both getting on into middle age and we could quite easily — be quite happy to -- liquidate the company and take our profits and live in reasonable luxurious conditions.

17. attacks on the other party's position

I am just wondering where you get this fantastic profit figure of $20,000 based on a 12% increase.

18. attacks on the other party's good faith

I think you're beating the drum, you're asking for the moon, and I think you're being quite unrealistic in terms of the economy of the company.
19. **Reference to own party's good faith**

    Now we're pretty reasonable people.

20. **Reference to other party's good faith**

    You've been reasonable with us throughout the term of this agreement.

21. **Unifying pronouns**

    We've had one good labor relations in this gerbil industry of ours.

22. **Other pronouns (divisive)**

    You haven't moved one inch out of your 10¢. We've already gone down 3%.

23. **Reference to precedents**

    Last year we came in on the basis of horse-trading -- we've come in and offered low and you've asked high . . . but this year . . .

24. **Offers help or suggestion to ease settlement**

    A slight increase in the price of them (the company's product) would more than make up the profit.

25. **Requests data information from the other party**

    What was the profit of the company last year?

26. **Requests attitude information from the other party**

    Would it change your thinking very much if you knew what our profit really was last year?

27. **Offers data information to the other party**

    Maybe it's going to be necessary to open the books to you because . . . our actual profits last year were in the order of 7%.

28. **Offers attitude information to the other party**

    Well . . . it's my firm conviction, and I have always maintained this, that any increase that the men get they have to earn.
29. shifts responsibility for decision

The men will not agree to hold the status quo and I very much doubt that they will accept anything below $3.40. This is our problem.

30. seeks agreement

... if you agree that starting at exactly the same place where we are today without increasing the rates will result in a profit of $25,000 to the company, then I think we've got a good starting point in our discussions.