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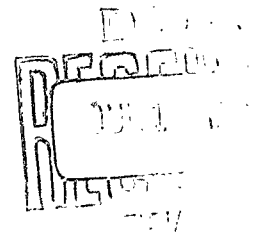
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EFFECTS ON NEGOTIATORS OF THEIR
PRIOR EXPERIENCE IN STRATEGY OR
STUDY GROUPS

Bernard M. Bass



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Abstract

Sixty-six graduate business students were assigned to represent union or company according to their attitudes about industrial relations. After receiving information about a strike which had started, each S participated in joint study, unilateral study or strategy groups, then bargained with an S representing the other side who had the same prior group experience. Negotiators with study group experience needed six simulated days or less, on the average, to reach agreement. Strategy planners averaged 32.6 simulated days in negotiations, experiencing many deadlocks. In comparison to unilateral study, bilateral study primarily affected agreement about the importance of issues but not the ease of negotiations.

Longer strikes produced settlements more costly to the company, but closer to the rate prevailing in comparable firms. Task-oriented negotiators reach agreements closer to this "going rate."

EFFECTS ON NEGOTIATORS OF THEIR PRIOR
EXPERIENCE IN STRATEGY OR STUDY GROUPS 1

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Introduction

This study set out to demonstrate that bilateral study groups prior to negotiations would facilitate the resolution of conflict between negotiators. Instead, it showed that study groups, whether unilateral or bilateral, facilitated negotiations in comparison to groups which formulated bargaining strategies.

Approaches to the Study of Bargaining

Several rather independent approaches have developed in the study of intergroup conflict resolution. Economists, interested in the exchange of value, have pursued rational and deductive formulations of the problem (Rapaport, 1960; Schelling, 1960; Boulding, 1962) with heavy emphasis on the mathematics of game theory. Political scientists like Mack & Snyder (1957) have extracted generalizations from surveys of historical materials. Psychologists like Sherif, et al., (1961) and Blake & Mouton (1961) have focused on the socioemotional aspects of in-group, out-group identification or the implications of reinforcement theory (Osgood, 1962).

Common Elements of Bargaining

Intergroup conflict contains a number of common rational and emotional elements whether it occurs between nations, between union and management, or between two department heads of the same company who must negotiate transfer prices.

The conflicting groups share a common fate. They are two rivals with a bilateral monopoly. Agreement must be reached if either party is to survive and prosper (Siegel & Fouraker, 1960). Union and management as well as rival nations must resolve their conflict or both will suffer the social and economic losses of overt hostility. Equitable transfer prices must be worked out between one department which supplies goods to another, or both sides may be penalized by higher authority for failure to maintain satisfactory organizational coordination.

Bargainers typically are engaged in a complex non-zero sum game where if each seeks to maximize his own gain at the expense of the other, both lose. Both parties can profit, although not maximally, by means of a cooperative solution. Both gain when they compromise at less than maximum return for each. Yet, there is no guarantee that the non-zero sum game will produce cooperating bargainers. On the contrary, competitive strategies are often maintained to the detriment of all concerned (Scodal, et al., 1959). The bargainers will cooperate only if they can develop mutual trust through appropriate communications and if they are oriented toward each other's welfare (Deutsch, 1957; Loomis, 1957).

Group Commitments. Although largely ignored by those primarily interested in the rational elements of bargaining, it is typical for bargainers to be

negotiating as representatives of their respective groups and to exhibit behavior strongly influenced by their group commitments. The industrial relations director at a collective bargaining session is constrained to a great degree by higher management authority and his management peers with whom he may already have marked out the limits of what he may do. The union representative knows he must strive to achieve a resolution satisfactory to the rank-and-file (Gouldner, 1954). Negotiators drawn from competing experimental groups in a zero-sum, "you win, I lose" game are completely locked into conflicting positions by group identifications. Hardly ever can either agree which of the groups did the better job, say, of preparing an essay on an assigned topic. Each remains committed to his own group's product. As group representatives, Ss are seriously biased in favor of their own group in the evaluation of the situation. Their flexibility is impeded by loyalty to their own group. Deviation from their own group position is treasonous. Their unwillingness to compromise is supported by fear of censure from their own group. Even after studying the opposite point of view, these partisans see more differences in a position than actually exists. The inability of a negotiator representing a group to agree that his opponent's group did a better job is not necessarily a conscious bias out of fear of sanction by his own members if he were to capitulate, for these biased evaluations will appear to the same degree even if complete secrecy is maintained about the source of the decisions (Blake & Mouton, 1961).

Yet, an unpublished study by R. Frye reveals that two individuals competing as individuals about which one wrote the best essay have relatively little difficulty in agreeing that one or the other paper was best. There is little overevaluation of one's own product and

devaluation of the opposing entry in comparison to what happens when representatives discuss the merits of their respective group products. Thus, the perceptual distortion which takes place in the evaluations of a negotiator who comes out of a group to represent it in the bargaining process is much less likely to appear when individuals are representing only themselves in negotiations. The inability of negotiators to reach agreement, to perceive issues in the same way, often lies in their group commitments, identifications and loyalties.

Purpose

If negotiators from competing groups were to be freed from these perceptual distortions as well as conscious fears of sanction, it was reasoned that changes would be needed in the group process which ordinarily precedes negotiations. It was felt that if the competing groups were brought together for joint study of the issues, like the Joint Human Relations Committee of United Steelworkers and steel company representatives, they could avoid the hardening of lines and commitments to one's own position likely to lock bargainers into rigid positions in subsequent negotiations. Joint study, it was argued, might reduce the tendency to focus more on the common interests of both sides and less on difficulties that do not really exist. Also, joint study with future negotiators offered an opportunity to become acquainted personally with the individual with whom one would subsequently negotiate.

The experimental treatment featured bilateral study among those who would subsequently face each other in negotiations. Three control situations were created and compared with the experimental treatment in their

effects on subsequent negotiations. In the first control, joint study was afforded but not with persons who subsequently would be met in bargaining sessions. This was to see the effect of personal familiarity on the behavior of negotiators independent of the effects of joint study, per se. For the second control, unilateral study groups were set up so that future negotiators studied the issues but only with members of their own side. A third control condition attempted to simulate the ordinary prebargaining strategy meeting of groups facing forthcoming negotiations. (The American Management Association, 1963, advertises a training course for executives in preparing "your strategy for presenting management demands...how best to set company goals in your prebargaining sessions....")

Method

A non-zero sum union-company bargaining game created by Campbell (1960) was modified and employed to test the differential effects of the four treatments.

The Problem

All participants were given a page of background information (Appendix A) about the Townsford Company, a small textile firm, and its union, concluding with the paragraph:

The three year contract has now expired. Negotiations broke down in the final week with both sides adamant in their positions. The only agreement reached was that each side would select a new bargaining agent to represent it, scheduled to meet today (the first day of strike) in an attempt to reach a quick solution and avoid a long strike.

Contract Issues

There were nine issues for bargaining: hospital and medical plan, wages, sliding pay scales to conform to cost of living, seniority, union representative on the Board of Directors, night shift differential, vacation pay, establishment of a work rules committee and a check off system. Each participant received a graphic statement of the current union and company positions on each issue and the financial cost to the company in thousands of dollars for a two year period (Appendix B). For example, for the wages issue, it was as follows:

PAST CONTRACT: \$1.94 per hour

UNION: demanded an increase of 16 cents per hour

COMPANY: refused outright

cents increase per hour										
COMPANY	00	02	04	06	08	10	12	14	16	UNION
Estimated total value in thousands of dollars for two years	(0)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	

Participants also received data on each of the nine issues for four other local textile plants in the same community and averages for other industries in the same city (Appendix C).

Five of the nine issues involved money. Four others, like the question of seniority, did not.

In addition, union representatives received a more detailed, one page memorandum explaining the union's position (Appendix D), while company representatives received a one page company memorandum explaining the company position in more detail (Appendix E).

Subjects

Prior to presenting the bargaining problem, the 66 subjects, all graduate business students, were assigned as the 33 union or 33 company representatives according to their scores on a 42 item questionnaire (Appendix F) about union-management attitudes developed by Hepler (1953) and refined by Campbell (1960). This was to increase the identification of subjects with the position they had to take as representatives. As might be expected, the business students were more pro-management ($\bar{X} = 114.2$) than the 132 undergraduate psychology students tested by Campbell ($\bar{X} = 120.0$), but the range of attitudes was the same for both samples (Figure 1). The business students tended to concentrate somewhat more in the moderately pro-management area while more psychology students were pro-union. As a whole, however, the normally distributed samples overlapped with greatest concentrations of both in moderate positions.

The Assignment

Assembled in a large classroom, subjects were instructed as follows:

You are going to take part in a study of collective bargaining. You will be assigned as a union or company representative depending on your expressed attitudes in the questionnaire you completed two weeks ago.

Participants then were given five minutes to read the background and contract information described before. Then a copy of the contract itself (Appendix G) was given each participant:

In order to settle an issue, both negotiators must accept some specific position on the issue. When both negotiators are in agreement on an issue, one man should read aloud the issue and the position to be endorsed. He then circles on both copies of the contract the position to be endorsed and each man initials the item in

the space provided at the right on both copies. Once both negotiators have agreed and initialed the issue, it is settled for the two year contract period, and it may not be changed later in the negotiations. Any man on either side may open the discussion, and any man on either side may read and circle the position of the issue once agreement is reached. These procedures have been established by joint agreement of the union and company.

Negotiators will be reminded each five minutes of the amount of time being consumed in negotiation. You are to consider each five minutes as being equivalent to one full day of negotiation. At the end of each five minute interval, the loss of an additional \$6,000 to each side in wages or profits will be noted. If no contract has been negotiated completely in 70 minutes (or 14 days), negotiations will be broken off and the strike will continue.

Issues for Bargaining (Appendix B) is a list of the issues you are to settle and a memorandum concerning the issues. You will be given time to examine this information and to take another look at the Background Information.

There are nine issues to be resolved. The issues are not arranged in any order of importance, and you may discuss them in any order or combination you desire. Under each issue you will find a statement of the specific provisions of the past contract and the positions of the company and the union when negotiations ended last week. Next, you will find a scale that shows at the left the present position of the company and at the right the present position of the union on a given issue. Between these extremes some possible compromises are listed for your convenience. And, finally, beneath the scales in the parentheses, you will find estimates of the amounts of money (in thousands of dollars) that each of the possible agreements directly above would cost or gain for your group in two years.

Treatments

Sixteen union and 16 company representatives were given the preceding assignment, then divided into four bilateral study groups. Each joint or bilateral group contained four union and four company representatives who were instructed as follows:

In these study groups of union and company representatives, you should devote the 30 minutes discussion time with learning as much as you can about each others' positions. You should do no negotiating or bargaining during this time. The purpose of the study group is to promote understanding of the other point of view in comparison to your own, to see the areas of greater and lesser disagreement. Negotiation will come later.

Following this, half of these representatives negotiated with others from their own bilateral study group, while half had to negotiate with others who had been in a different bilateral study group.

Thirty-four additional representatives, 17 for the union and 17 for the company, were given the preceding assignment and now divided into four unilateral groups of eight or nine men each. One unilateral company group of eight and one unilateral union group of eight was instructed to study the issues as follows:

You should use the 30 minutes to learning as much as you can about union and company positions. Rather than formulate any strategies for bargaining, the purpose of this 30 minute study is to promote understanding of the other point of view in comparison to your own, to see the areas of greater and lesser disagreement.

The other two unilateral groups, one of nine company men and the other of nine union men were told to formulate strategy:

You should use the 30 minutes to plan your bargaining strategy, to formulate a package of agreements, to prepare for concessions and to decide on items on which you feel each man representing you should stand firm.

So of each group knew only about their own treatment until the post-session critique.

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Some strategic planning actually took place in the unilateral study groups, but it involved setting general guidelines, within which its

members could remain highly flexible. For example, the union bilateral study group set a goal of \$61,500 in monetary concessions to be obtained from the company, but no specific way of attaining this was decided.

Negotiations

Following the 30 minute study or strategy session, 33 representatives negotiated with 33 opposite representatives, in pairs, until a contract was signed or the paired negotiators deadlocked at the end of 70 minutes of bargaining. (Actually, seven of the 33 pairs failed to sign contracts in the 70 minutes.) Then, a post-negotiations questionnaire (Appendix H) was completed by all participants concerning how long they would like to see the contract last, how good they felt the other negotiators had been, how acceptable the contract was to one's side, who got the better deal, the defensibility of one's position and how congruent the role they had played had been with their own beliefs. They also ranked the nine issues in order of importance.

A post-session critique was conducted with all 66 negotiators assembled together.

Results

Duration and Cost of Strike

Each five minutes simulated one day of strike costing company and union membership \$6,000 each in lost profits or wages. As shown in Table 1, seven of the 33 bargaining pairs failed to reach agreement before the 70 minute (or 14 day) deadline. Five of the nine pairs of bargainers

from strategy planning groups deadlocked while only two from the 24 pairs of study group negotiators failed to settle the strike before the 14 day deadline. In order to compute mean strike times including these data, the reciprocals of the measured time needed for negotiations were calculated to yield harmonic means. These measures of the duration of the strike are shown in Table 1 for each of the four treatments. If no 14 day deadline had existed, the pairs of bargainers from union and management strategy planning groups would have taken 32.6 simulated days on the average to settle the strike at a cost in lost profits or wages to each of \$195,900 while bargainers from the study groups, whether unilateral or bilateral, would have taken between 4.9 to 6.1 days at about one-sixth the cost. The t value of 5.05 comparing harmonic means between the strategy and the combined study treatments was highly significant statistically, as might be expected from the widely divergent means.

There was a subjective indication of great conflict between strategists. Although no objective measures were made, the experimenter and assistants sensed that the noise level generated by the negotiators from strategy groups was far more intense than the noise created by the negotiators from study groups.

Our study did not examine the effect of group commitment, per se. But, comparable union teams of two, studied by Campbell (1960), given the opportunity to plan strategies, who bargained with management teams of two, where each day of strike cost \$6,000 and where protagonists were simulating roles in which they believed, were able to reach agreement in 9.4 simulated days.

Study group experience prior to negotiating, relative to Campbell's findings, increased the speed of settlement. Strategy planning, in nine-man groups, reduced it considerably.

Direction of Settlement

A scoring procedure developed by Campbell (1960) was applied to each of the 26 signed contracts. One score indicated how much the agreement reached by the two negotiators on each issue deviated algebraically from the "going rate" in the other two comparable local textile plants in the same community (Moss and Rose of Appendix C). Another score indicated the absolute deviation of the settlement from the going rate.

The deviation values (Appendix I) were obtained by assigning 0 to a settlement of an issue at the "going rate" (in the Moss and Rose firms) and converting the intervals into percentages of 100 units. If there were four deviating points on a scale for an issue, then the deviations from the going rate were 25, 50, 75 and 100; for five points, they were 20, 40, 60, 80 and 100. If the going rate or zero deviation was inbetween what the union and management were demanding, then the union position arbitrarily was positive and the management, negative. Therefore, the lower the sum of algebraic values of deviations for the nine contract issues from the going rates, the more the settlement favored management; the higher the sum of algebraic deviations, the more the agreement favored the union. When the signs were ignored, the sum of the absolute deviations indicated simply how much the negotiators departed from the going rate, in one direction or the other, in reaching a final agreement.

As seen in Table 1, the four bargaining pairs from the strategy groups who reached agreement had to depart more widely from the "going rate" than did the bargainers from study groups, as a whole. The mean absolute deviation for these four pairs of strategists was 230.5 while it was 175.8 for all those from study groups ($p < .05$). Again, the strategists who signed contracts reached agreement much more favorable to the union than did those from study groups ($p < .05$) according to the algebraic mean deviation of -49.0 for the strategists compared to -74.3² for all those from study groups.

Negotiating with former associates in joint study seemed to result in agreements more favorable to the union (-64.5) than bargaining with others from different joint (-79.9) or unilateral study groups (-78.2). Joint study with future bargainers may have "softened" company representatives somewhat who were likely to be on the defensive in study discussions because their starting position was below the going rate, in general.

Again, group experience, per se, seems to have contributed to divergence from Campbell's outcomes with comparable two-man teams. Campbell's teams' average deviation was -70.3, less pro-company than those negotiators from our unilateral study groups, for example, but more pro-company than those from our strategy groups. On the other hand, group experience appears to markedly reduce the tendency to deviate absolutely from the going rate. Group experience exerts a pressure towards conforming to community norms on each issue. Campbell's appropriate sample yielded agreements whose absolute deviation averaged 359.7

while ours was 183.5. None of his other five samples of teams of two fell as low as our highest-scoring strategy sample mean of 230.5.

Cost of Settlement

Five of the nine settlements in each contract involved monetary issues. The mean cost on these issues of agreements reached is shown in Table 1. Here, bargaining after meeting in unilateral study groups seemed most profitable to the company as its settlement cost only \$40,500 in increased wages and benefits while bargainers from other groups were costing the company above \$50,000 on the average.

However, they must have agreed to union demands on other issues to a greater extent than did joint study participants negotiating apart, for the overall contracts they signed were no more favorable to the company.

As might be expected, company negotiators, as a whole, preferred a longer contract length than did their union counterparts ($p < .01$). But, consistent with the greater favorableness of the contracts for the union signed by those from strategy planning groups who could agree, union strategists preferred a longer contract than did union bargainers from other treatment groups while company strategists preferred one of shorter length than did other company negotiators. The significant interaction ($p < .05$) of treatment with company or union identification supports the inference that the study treatments yield company negotiators preferring longer contracts than union counterparts while the strategy treatment did not.

Treatment had no significant effects on other ratings of the post-session questionnaire such as evaluation of the competitor's performance although despite the fact that all participants were business students, company negotiators felt significantly less than union representatives that the assigned role agreed with their own beliefs ($p < .05$). This probably was because they, as well as the union representatives, felt the company position was less defensible than the union's ($p < .01$). But despite this, agreements reached under all four treatments still were relatively favorable to the company in comparison to "going rates" in the community. Evidently, company negotiators felt they could maintain a harder line, although it was legitimately less defensible.

Interrelations Among Outcomes

For each treatment, the duration of negotiations, deviation of resolutions from the going rate, cost and agreement of the bargainers on importance of issues were intercorrelated. Table 2 displays the results.

While no one value is likely to be significant, because only nine cases contributed to it, consistent outcomes for all four treatments involving a total of 33 cases seem worth noting. For example, in all four treatments, the longer the duration of negotiations, the more the settlement cost the company in benefits granted, the less favorable was the settlement to the company and the closer was the resolution to the going rate. Presumably, union men pushing for higher wages and benefits met more company resistance and negotiations lasted longer. And, obviously, contracts more favorable to the company cost it less.

Ranked Importance of the Issues

Regardless of treatments, wages were ranked of greatest importance. They were assigned an average rank of 1.52 by the 66 negotiators. Second was the sliding pay scale (2.52) and third the hospital plan (4.00) followed by the night shift differential (4.88). Here, company and union differed significantly ($p < .05$), the union regarding this differential as more important (union, 4.41; company, 5.34). Seniority was ranked 5.42, vacation pay, 6.19 and the work rules committee, 6.31. Eighth was the issue of union representation on the company board. Of the nine issues, treatment only significantly affected the importance attached to this proposal that a union representative sit on the company board. Evidently, this must have been an item pushed by the union during its strategy planning which raised its saliency relative to its assigned importance by study group bargainers (see Table 1). The check-off was least important, but the union attached significantly ($p < .01$) more importance to it (7.13) than did the company which ranked it 8.16.

Agreement on Importance of Issues

For each pair of bargainers, the correlations in their rankings of the importance of the nine issues was calculated, then converted to Fisher's Z . The mean correlations for each treatment are shown in Table 1.

Each conflicting pair of bargainers from the bilateral groups who subsequently bargained together were in greatest agreement (.76) about the rank order of importance of the nine issues they had tried to negotiate. At the same time, bilateral study followed by negotiating with others from another bilateral study group promoted the least agreement about which issues were important (.38).

Evidentially, while bilateral study fails to produce easier resolution of conflict in comparison to unilateral study, it does seem to commit its specific members from both sides to agreement about the importance of issues.

Each bilateral study group emerges with different schedules of commitment of its members. If negotiators come from the same bilateral study group, they are most likely to agree on what issues are important; if they come from different study groups, they have strongest commitments to different orders and are most likely to disagree. But, as seen in Table 2, how much negotiators agree on the importance of issues has little to do in any consistent way with the way they settle the dispute.

Orientation of the Bargainers

Self, interaction and task orientation scores (Bass, 1962) were available for the negotiators. To see the extent orientation of the bargaining team affected contract outcomes, the sums of self-orientation scores for each bargaining pair and the differences between the self-orientation scores for each bargaining pair were calculated. The same was done for the interaction and the task orientation scores. Then, for each treatment, these six values were intercorrelated with contract outcomes.

Again, consistent patterns were sought since the likely significance of a single correlation based on eight cases is quite low.

For the four treatments, the correlation between the combined task orientation of the pairs of negotiators and the departure of the

settlement from the going rate were: $-.49$, $-.28$, $-.55$ and $-.71$. On the other hand, the differences in task orientation of the pairs correlated respectively $.27$, $.14$, $.28$ and $.78$ with this departure. Thus, task-oriented negotiators reached settlements closer to the going rate. (Interestingly enough, Campbell (1960) regards closeness to the going rate as a criterion of the quality of the resolution.) But, they are less likely to do so if there is a large divergence within the pair in their task-orientation.

When the negotiating pair is high in self-orientation according to their combined scores, they appear to agree slightly more on the importance of the nine issues. The correlations for the four treatments were $.22$, $.46$, $.18$ and $.28$.

Self-oriented negotiators seemed to show different patterns as a consequence of whether they were from a strategy planning group or not. Strategy pairs with high self-orientation scores reached settlements more favorable to the company ($.32$) at lower costs to the company ($.47$), but self-oriented negotiators from study groups did the reverse. For them, correlations between self-orientation combined scores correlated $-.33$, $-.69$ and $-.40$ with degree of favorableness of the settlement for the company, and the combined scores correlated $-.31$, $-.74$ and $-.18$ with costs of the settlement to the company.

Similar patterns emerged when the post-session opinions of each of the 16 to 18 negotiators of each treatment were correlated with their orientation scores. Self-oriented Ss from study groups but not from

strategy groups were more likely to feel the contract they signed was fully acceptable to their side. Correlations for the study groups were .16, .26 and .23 between belief in contract acceptability and self-orientation scores, but only .02 for those from strategy groups. Self-oriented Ss from each of the study groups assigned less importance to the work rules committee: $r = .52, .48$ and $.30$ and to the check off system: $r = .13, .12$ and $.21$, but for both issues, self-oriented Ss from the strategy groups ranked these issues more important: $r = -.56$ and $-.19$.

In the same way, interaction-oriented Ss from study groups attached more importance to wages: $r = .22, .23$ and $.22$; and a shorter contract duration ($-.47, -.14$ and $-.18$) but interaction-oriented Ss from strategy groups did not ($r = -.36$ and $.06$).

Consistent with their self-concerns, no doubt, under all four treatments, self-oriented Ss ranked the hospital and medical plan as more important an issue. Correlations were $-.15, -.21, -.13$ and $-.18$ between the rank assigned the issue and self-orientation scores. And, equally meaningfully, task-oriented Ss under all treatments regarded this issue as less important: $r = .22, .12, .45$ and $.55$. Again, consistent with the meaning of task orientation, under all four treatments, the 66 task-oriented negotiators tended to regard vacation pay as less important ($r = .20, .21, .55$ and $.35$).

Post-Session Critique

Pairs who had deadlocked and those who reached agreement quickly were queried about the reasons for their outcomes.

Some deadlocked partisans said they were unconcerned about the length or cost of the strike. Others argued that there was no reason to settle for less than the going rate since they assumed that workers could get jobs elsewhere.

One told of his negotiating process which seemed prone for failure. He would only negotiate on a one-for-one basis and would not give anymore than he felt he received in swapping issue-by-issue.

Two negotiators, who deadlocked and sat back-to-back in stony silence for the last part of the negotiating session, did not need to comment about their emotional involvement, but another deadlocked partisan felt he had been carried away by the role and had behaved completely realistically.

Early success in attaining what is regarded as an important concession, and concern about the cost of the strike, produced early settlement. "...we agreed almost immediately on a six cents an hour increase, which my group had figured was the most important matter. On the less important items, I put a premium on time and did not worry about pennies. I figured it was better to remain below the going rate but settle the strike quickly."

An agreeable opponent also helped: "...we started out by going through the few things that I was going to really build up as something big to trade on, and he went right through (the list of issues) and just gave them to me right away and so I just let him keep going...."

One pair seems to have exemplified Osgood's (1962) gradualism without knowing it. First, one negotiator made a small concession. This was followed by one from the other and so on down the line until full agreement was quickly reached. Yet, an astute negotiator commented: "One thing I noticed (with strategy groups) was you could begin to detect after a while what their strategy was. For example, they would concede the smaller issue and skip over the most important, wages, and then hope-fully come back later and use the argument, 'oh, since we gave you that, how about....'"

The richness of the simulating situation in eliciting a variety of resolution processes was apparent.

Conclusions

Negotiators who previously have been in study groups, whether bilateral or unilateral, have relative little difficulty in resolving conflict. On the other hand, bargainers from groups who plan strategies are likely to deadlock or to take significantly longer to reach decisions. A markedly different noise level, amount of argument and degree of obstinancy was observed by the experimenter and assistants when strategists bargained than when those from study groups negotiated.

The company position appeared less defensible to all protagonists, yet, negotiations, whatever their prebargaining treatment, reached settlements leaving the company still better off than the going rate, although this was less likely where strategies had been planned in advance of bargaining.

In comparison to Campbell's (1960) results, group experience, per se, produced more or less difficulty in achieving resolution depending on the treatment, although all of our negotiators tended to end closer to the going rate than did Campbell's.

Longer strikes produced settlements more costly for the company, settlements closer to the going rate.

The original purpose of the experiment was to demonstrate the efficacy of joint study. While joint study was no more effective than unilateral study in speeding negotiations, joint study increased the commitment about the importance of issues. Negotiators from the same

study groups were most in agreement; negotiators from different study groups were least in agreement about the importance of the nine issues.

Orientation of the bargainers had some effects on outcomes. Task-oriented negotiators were less likely to reach agreements which departed from the going rate--a possible criterion of better resolutions of the conflict. Self-oriented negotiators could agree more on the importance of the issues, but this only affected how they resolved them depending on whether they had been in strategy or study groups previously.

Strategy planning in advance of negotiations prolongs the conflict and makes resolution more difficult. Yet, if one side accepts study instead of strategy planning in order to facilitate conflict resolution, how can it be sure the other side will not take advantage of the situation to plan strategy elsewhere, even if it meets in joint study?

We need to know now what happens if just such occurs and if negotiators who study the issues are put at a disadvantage if they must bargain with negotiators who have a strategy. It may well be they are not at a disadvantage. For example, those who study the issues and only set broad goals within which they remain completely flexible may be in better bargaining positions than those committed to a plan, a sequence of give-and-take or a program of tactics predicated on a unilateral definition of the problem and its solution.

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Footnotes

¹ This work was supported by Contract N onr 624(14), Group Psychology Branch, Office of Naval Research.

² Unless otherwise indicated, statistical analyses of contract data were completed by analyses of variance of the 33 contracts comparing the four treatments, eight or nine contracts per treatment. Contracts were pooled into 24 study versus nine strategy contracts for further comparison.

Two-way analyses of variance were completed for the subjective responses of union versus company representatives under each of the four treatments. Appropriate F tests of the main effects or the interaction yielded the reported p values.

The writer is indebted to Robert Voytas, Ed Teitelbaum and James A. Vaughan for IBM 7070 programing and computing assistance.

Table 1

SIGNIFICANT EFFECTS OF PRIOR GROUP EXPERIENCE
ON SUBSEQUENT BEHAVIOR OF NEGOTIATORS

	Prior Group Experience <u>Study the Issues Only</u>				
	<u>Strategy Planning</u>	<u>Bilateral With Future Opponents</u>		<u>Unilateral</u>	<u>All</u>
		<u>Together</u>	<u>Apart</u>		
Number of bargaining pairs	9	8	8	8	33
Number of deadlocks	5	0	1	1	7
Duration of strike (in simulated days)	32.6	6.1	5.3	4.9	12.2
Cost of strike in lost profits or wages	\$195,900	\$36,780	\$31,680	\$29,340	\$73,425
Departure of settlement from the going rate	230.5*	185.5	170.1	171.9	183.5
Degree of settlement in favor of company (low value favorable)	-49.0*	-64.5	-79.9	-78.2	-67.9
Two year cost to company of settlement (low value favorable)	\$55,000*	\$56,000	\$52,400	\$40,500	\$50,975
Agreement on the relative importance of the issues	.60	.76	.38	.52	.61
Ranked importance of union representative on company board	5.94	6.88	7.00	6.13	6.48
Preferred contract length in years by union representatives	2.2*	2.1	1.7	1.6	1.90
Preferred contract length in years by company representatives	2.1*	3.6	3.4	3.1	3.05

* Based on the four signed contracts excluding
the five deadlocked negotiations.

Table 2

INTERCORRELATIONS FOR EACH TREATMENT AMONG DURATION OF STRIKE, DEPARTURE FROM INDUSTRY
NORMS, FAVORABLENESS COST OF SETTLEMENT TO MANAGEMENT AND AGREEMENT ON IMPORTANCE OF ISSUES

	<u>Prior Experience</u>	<u>Duration of Strike</u>	<u>Departure of Settlement From Going Rate</u>	<u>Degree of Settlement in Favor of Company</u>	<u>Cost to Company of Settlement</u>	<u>Agreement on the Relative Importance of Issues</u>
<u>Duration of Strike</u>						
Strategy			-.99	-.20	.25	-.76
Opponents Together			-.06	-.58	.94	.24
Opponents Apart			-.73	-.36	.73	-.40
Unilateral			-.04	-.09	.23	-.32
Mean*			-.54	-.34	.63	-.35
<u>Departure of Settlement From Going Rate</u>						
Strategy				.30	-.31	.76
Opponents Together				-.36	-.04	-.08
Opponents Apart				.22	-.53	.12
Unilateral				.04	.32	.22
Mean*				.05	-.12	.30
<u>Degree of Settlement in Favor of Company</u>						
Strategy					-.71	.31
Opponents Together					-.65	.21
Opponents Apart					-.62	-.06
Unilateral					-.87	-.28
Mean*					-.73	-.05
<u>Cost to Company of Settlement</u>						
Strategy						-.28
Opponents Together						.23
Opponents Apart						-.20
Unilateral						.42
Mean*						.05

* Mean r's calculated using Fisher's Z;
p < .01 when the mean r = .44

COMPARISON OF CURRENT MBA STUDENT ATTITUDES TOWARD UNION AND MANAGEMENT WITH COLLEGE UNDERGRADUATES

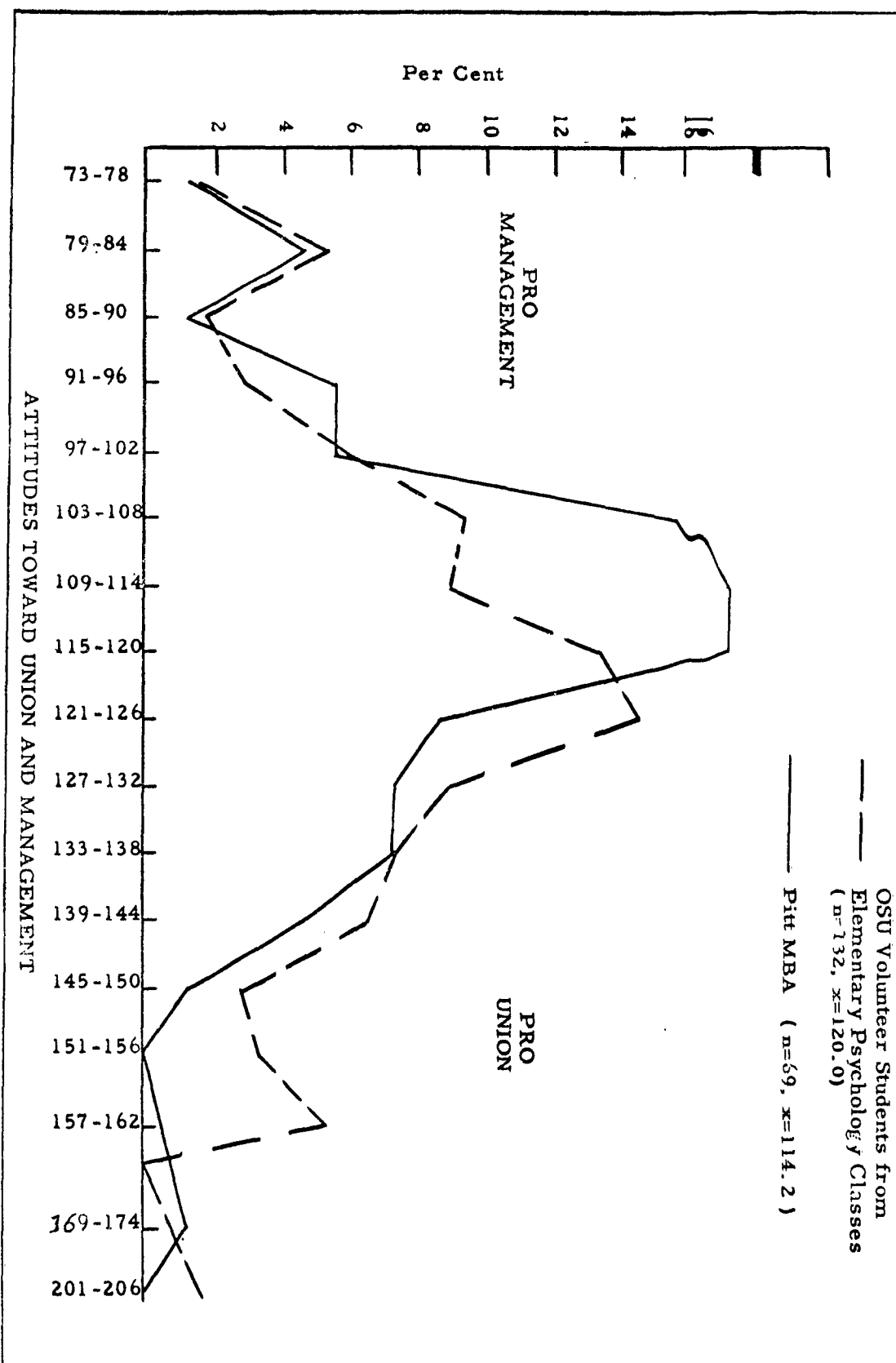


Figure 1: Comparison of Current MBA Student Attitudes Toward Union and Management with College Undergraduates

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- A. Background Information
- B. Issues for Bargaining
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- D. Appointment to Union Bargaining Team
- E. Appointment to Company Bargaining Team
- F. Attitude Toward Union's Questionnaire
- G. Final Terms of the Contract
- H. Post-Session Questionnaire
- I. Deviation Values for the Issues

Appendix A

Background Information

The Townsford Company is a small textile company located in a large northern city. Townsford is highly respected for its quality work in the dyeing and finishing of raw woven fabrics. It employs approximately 250 men. Townsford's men are among the most skilled to be found in the area.

Although Townsford's wage scale, \$1.94 per hour, compares favorably with most other textile firms in the area, it is 3 percent below those textile firms which employ workers of equivalent high skill and produce a similar high quality product. Wages in the industry have not increased in proportion to increases in the cost of living or increases in other industries. Despite occasional small wage increases, over a period of years Townsford's workers have slipped from a relatively high pay scale to a position roughly equivalent to that of lowly skilled workers in other industries. This has caused some unrest among the workers, and there is some danger of the workers shifting into these other higher paying industries. Unemployment is below normal in the area, and it has been difficult to obtain replacements who meet the skill requirements at Townsford.

Townsford gives seven paid holidays and two weeks of paid vacation to all workers with at least one year of service. The company also pays 1/4 of each employee's hospital and medical insurance and grants other minor fringe benefits. More detailed information on Townsford and other local firms may be found in the table that accompanies this background information.

The general business conditions of the country are good and the financial conditions of Townsford are stable. Townsford is operating at full capacity and has a six month backlog of orders. Profits are not as high as at previous times, however, since the company has not raised the prices in several years in order to maintain a good competitive position with other sections of the country. The company has been able to maintain a 6 percent stockholders dividend and has made recent purchases of more modern equipment.

The personnel policies at Townsford are not the most modern but are better than those of most plants the same size. The past president of the company, who retired three months ago, knew most of the men personally and was well liked. He is largely responsible for the reputation of Townsford as a "good place to work." His successor is viewed with some suspicion by the workers, due mainly to his statements about changing some of the work procedures to achieve greater efficiency.

The plan was unionized (a Union Shop) in 1935. Relations with the company, for the most part, have been quite good with grievances promptly discussed and settled. The first strike occurred, however, in 1959 and lasted 15 days. The workers lost the fight for a sliding-scale wage based on increases in the cost of living index, but did get the hospital and medical plan, a five cent per hour wage differential for night shift workers and several other minor fringe benefits.

The three year contract has now expired. Negotiations broke down in the final week with both sides adamant in their positions. The only agreement reached was that each side would select a new bargaining team to represent it, scheduled to meet today (the first day of strike) in an attempt to reach a quick solution and avoid a long strike.

Appendix B

Issues for Bargaining

1. Hospital and Medical Plan:

Past Contract: Company paid 1/4 of cost, employee paid remaining 3/4

UNION: demanded company pay full cost

COMPANY: refused to pay more than 1/4

	proportion of company payment				
COMPANY	1/4	2/4	3/4	4/4	UNION
Total money value	(0)	(6)	(12)	(18)	

2. Wages:

Past Contract: \$1.94 per hour

UNION: demanded an increase of 16 cents per hour

COMPANY: refused outright

	cents increase per hour										
COMPANY	00	02	04	06	08	10	12	14	16	18	UNION
Total money value	(0)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)	

3. Sliding Pay Scale to Conform to Cost of Living:

Past Contract: pay scale is fixed through the term of the contract

UNION: demanded pay increases in proportion to increases in the cost of living

COMPANY: rejected outright

COMPANY	NO	YES	UNION
Total money value	(0)	(20)	

4. Seniority:

Past Contract: straight plant-wide seniority, workers are laid off on the basis of the number of years with the company

UNION: rejected any changes in the seniority principle

COMPANY: demanded some flexibility in the seniority rule; wants to establish departmental seniority (seniority rule would apply within departments only)

COMPANY	YES	NO	UNION
Total money value	(0)	(0)	

5. Union Representative on the Board of Directors:

Past Contract: no union representative on the Board

UNION: demands one union representative be appointed

COMPANY: rejected outright

COMPANY	NO	YES	UNION
Total money value	(0)	(0)	

6. Night Shift Differential:

Past Contract: an extra 5 cents per hour is paid for night work

UNION: demands a 5 cent increase to 10 cents per hour

COMPANY: rejected

	cents increase per hour						
COMPANY	0	1	2	3	4	5	UNION
Total money value	(0)	(1)	(2)	(3)	(4)	(5)	

7. Vacation Pay:

Past Contract: 2 weeks paid vacation for all workers with one year service

UNION: wants 3 weeks paid vacation for workers with 10 years of service

COMPANY: rejected

	2 wks. for 1 year service	3 wks. for 20 years service	3 wks. for 15 years service	3 wks. for 10 years service	
COMPANY					UNION
Total money value	(0)	(1/2)	(2)	(5)	

8. Establishment of a Work Rules Committee:

Past Contract: no work rules committee exists

UNION: rejected establishment of committee

COMPANY: demanded establishment of a work rules committee composed of two company representatives, two union representatives, and two efficiency engineers from an industrial consulting firm to study and to be responsible for changes in work rules.

COMPANY	YES	NO	UNION
Total money value	(0)	(0)	

9. Checkoff System:

Past Contract: workers pay union dues to union representatives on pay day

UNION: demanded a checkoff system whereby the company deducts union dues from the worker's pay for the union

COMPANY: rejected the checkoff system

COMPANY	NO	YES	UNION
Total money value	(0)	(0)	

To: Union Negotiator Only

From: Union

Subject: Issues

1. The Union is thoroughly irritated with the Company's refusal to grant the workers badly needed wage and benefit increases.

2. The checkoff system would eliminate unnecessary worker inconvenience and allow for smoother Union functioning, yet require little effort on the part of management.

3. The Union feels that strikes could be avoided if it were allowed a voice on the Board of Directors. Problems could be presented directly to the Board and solved in rapid order.

4. Changes in the seniority rule are unnecessary. The seniority rule is designed to protect the older worker and is a reward for his continued good service to the company. He is capable of shifting departments or jobs and maintaining efficiency.

5. The Work Rules Committee would be used to speed up work rates and reduce the number of employees. These are at an optimum level and should not be changed. The committee is unnecessary; Townsford is noted for its high quality workers.

To: Company Negotiator Only

From: Company

Subject: Issues

1. The Union demands for general wage and benefit increases are completely unreasonable. If labor costs are increased, it might necessitate price increases which could seriously hamper the company's competitive standing.

2. Departmental seniority would lead to greater efficiency when it is most needed by keeping properly trained men on the job.

3. The purpose of the Work Rules Committee is the development of greater productivity through more efficient work procedures. Increased productivity would permit higher wages.

4. The Union has no place on the Board of Directors. This is merely an attempt on the part of the Union to infiltrate into management functions.

5. A checkoff system is unnecessary. It would be improper for the Company to collect Union dues. Dues collection is clearly a Union function.

Appendix C

Data from an Independent Community Survey (1959-1960)

The following table gives information on Townsford, four other local textile plants, and averages for non-textile industries in the community. The Moss Plant and the Rose Plant employ highly skilled workers.

	Towns- ford	Moss	Rose	Baxter	Kraft	Average for other industries in the community
Number of Workers	250	600	200	350	600	100
Paid Vacation	2 wks. for 1 year	2 wks. for 1 year	2 wks. for 1 year	2 wks. for 1 year	2 wks. for 1 yr., 3 wks. for 20 yrs.	2 wks. for 1 yr., 3 wks. for 15 yrs.
Paid Holidays	7	7	8	6	8	8
Company Payment for Hosp. & Med. Insurance	1/4	3/4	3/4	4/4	0	1/2
Cost of Living Increases	No	Yes	Yes	No	Yes	40% Yes
Hourly Wage Rate	\$1.94	\$2.00	\$2.00	\$1.86	\$1.88	\$2.10
Night Shift Differential	\$.05	\$.09	\$.11	\$.08	\$.03	\$.10
Union Repre- sentative on Board	No	No	No	No	Yes	10% Yes
Type of Seniority	Plant- wide	Depart- mental	Depart- mental	Depart- mental	Plant- wide	65% Departmental
Checkoff	No	Yes	Yes	No	No	50% Yes
Work Rules Committee	No	No	No	No	Yes	15% Yes

Appendix D

Appointment to Union Bargaining Team

You have been selected by the Union to represent it in its negotiations with the Townsford Company. Negotiations for a new two year contract broke down last week. Although no compromises were reached in either side's position, it was decided that each side should appoint new bargaining teams in an effort to settle the contract and halt the strike which began today.

You are to do the best possible job you can to get a good settlement of the contract for labor. Union members were dissatisfied with the last contract, negotiated in 1957, and there is serious danger of division in the ranks of the Union if a more satisfactory contract is not achieved in these negotiations. It is essential to labor, however, that the contract be settled in this bargaining period. We realize that this involves compromises on both sides, and you are appointed to carry out binding negotiations for us. Remember, your job is to reach a settlement, one that is good for labor, in this negotiating period.

Appendix E

Appointment to Company Bargaining Team

You have been selected by the Townsford Company to represent it in its negotiations with the Union. Negotiations for a new two year contract broke down last week. Although no compromises were reached in either side's position, it was decided that each side should appoint new bargaining teams in an effort to settle the contract and halt the strike which began today.

You are to do the best possible job you can to get a good settlement of the contract for the company. Although the company now has a backlog of orders, it is in danger of losing several major customers if increased labor costs necessitate a significant price increase. It is essential to the company, however, that the contract be settled in this bargaining period. We realize that this involves compromises on both sides, and you are appointed to carry out binding negotiations for us. Remember, your job is to reach a settlement, one that is good for the company, in this negotiating period.

Appendix F

Your Name _____
(Please Print)

INSTRUCTIONS

Preliminary Remarks

The purpose of this questionnaire is to determine the importance of some of the issues in the field of labor-management relations today, as well as to determine the position that various groups will take on these issues.

In filling out these questionnaires, it is extremely important that you answer them according to your own basic ideas on the subject and not as someone else thinks about it or the way that you think it should be answered.

Marking the Questionnaire

On the following pages you will find various statements concerning one phase or another of an issue of present day labor-management relations. Before each statement are spaces for entering numbers from 1 to 5. If you mark

- 1 It means that this statement reads opposite to your attitudes on this issue; that you definitely disagree with the statement.
- 2 It means that you partially disagree with the statement; that you believe it to be more wrong than right.
- 3 It means that you have no opinion about the statement; that you stand on the middle of the road on this issue; that you do not know what it means.
- 4 It means that you partially agree with this statement; that you agree with the statement with reservation; that the statement is more right than wrong.
- 5 It means that you fully agree with the statement; that this statement fully expresses your attitude on the issue involved.

Please enter the number in the space which most clearly represents your attitude about the statement. Be sure that you have placed one and only one number beside each statement. Leave no blanks.

- | | |
|--|--|
| ___ 1. Union demands of excessive wage increases are primarily responsible for large increases in prices. | ___ 7. Communists have infiltrated into and hold policy-making jobs in most unions. |
| ___ 2. Layoffs should be made on the basis of seniority. | ___ 8. White collar workers as well as laborers should be organized. |
| ___ 3. The company should be given the right to discharge a man it considers unsatisfactory at any time during his employment. | ___ 9. Since management considers the worker as just another commodity to be used in production, workers must organize unions to defend their rights as individuals. |
| ___ 4. Individual initiative is more important than collective security. | ___ 10. Management must preserve the sole right to govern the company's pricing policy if industry is to survive. |
| ___ 5. Union leaders are more interested in their own financial welfare than in the workers' financial welfare. | ___ 11. Unions should lobby for labor legislation. |
| ___ 6. The union should be given equal representation with management on the Board of Directors. | |

12. Unions struggle to keep existing work rules in order to ensure the health and safety of the worker, not to make unnecessary work or to featherbed.
13. The legal minimum wage should be raised to at least \$1.50 per hour.
14. Most of the violence found at picket lines is instigated by management itself.
15. In all probability, management will someday break all unions since they do not fulfill any duty which cannot be fulfilled by management itself.
16. John L. Lewis has gained much for his men, but most of the gains have been at the expense of the public.
17. In recent years, the high profits of management have been thrown away on advertising and the like when they should have been used to compensate workers for their increased productivity.
18. A closed shop (all workers must join the union) is beneficial to the worker.
19. The union does not represent the plant owners and should not attempt to participate in management's decisions on plant policies.
20. Corporation profits today are excessive.
21. The unions no longer represent the interests of the workingman but that of top union executives.
22. Management's assertion that inflation is a result of rising labor costs is a distortion of facts and degrades labor's contribution to industrial growth.
23. In a piece-rate system of payment, management should be allowed to set the piece-rate since they have hired experts in this field to do the work.
24. The AFL-CIO merger was another great step forward for American industry.
25. There is no reason why high union officials should not be paid as much as high management officials.
26. Shortening the work week with no loss in pay is a sensible union solution to the problem of automation and unemployment.
27. The Union should help management in setting the pricing policy of the company.
28. The higher standards of living that is enjoyed by the average American workingman today would have come about without the aid of unions.
29. Some of the union's power should be taken away from it.
30. Unions will eventually bring about the downfall of the Free Enterprise System.
31. Management's practice of discrimination against older workers makes the union's fight for seniority rules a necessity.
32. The problem in labor relations today is not that unions are too strong but management's refusal to accept labor as an equal partner in the industrial process.
33. Unions should intensify their effort to organize government employees.
34. The recent spiral in prices is due to price hikes on the part of management after which the unions demand pay hikes to keep up with the cost of living.
35. The actions of top union officials are more for their own benefit than for the workers.
36. Unions should not meddle in politics.
37. The union is not interested in power itself but only in protecting the welfare of the workers.
38. Unions are more to blame for inflation than are managements.
39. Unions weaken individual initiative.
40. Any policy changes in personnel procedures should be worked out in a joint conference between both management and union officials.
41. White collar workers should not be unionized.
42. The motives governing the action of top union officials are prestige and financial gain, and not the welfare of the workers.

Appendix G

Final Terms of the Contract

Company Negotiator _____ Union Negotiator _____

<u>Clock Reading at Settlement</u>	<u>Issue No.</u>	<u>Initials of Negotiators</u>
_____ :	1. <u>Hospital & Medical Plan:</u> Proportion of company payment <u>1/4 2/4 3/4 4/4</u>	Company _____ Union _____
_____ :	2. <u>Wages:</u> Cents increase per hour <u>00 02 04 06 08 10 12 14 16 18</u>	Company _____ Union _____
_____ :	3. <u>Sliding Pay Scale to Conform to Cost of Living:</u> <u>Fixed Scale Sliding Scale</u>	Company _____ Union _____
_____ :	4. <u>Seniority:</u> <u>Departmental Plant-wide</u>	Company _____ Union _____
_____ :	5. <u>Union representative on the Board of Directors:</u> <u>NO YES</u>	Company _____ Union _____
_____ :	6. <u>Night Shift Differential:</u> cents increase per hour <u>0 1 2 3 4 5</u>	Company _____ Union _____
_____ :	7. <u>Vacation Pay:</u> 2 wks. for 3 wks. 3 wks. 3 wks. 1 year for 20 yrs. for 15 yrs. for 10 yrs. service service service service	Company _____ Union _____
_____ :	8. <u>Establishment of a Work Rules Committee:</u> <u>NO YES</u>	Company _____ Union _____
_____ :	9. <u>Check off System:</u> <u>NO YES</u>	Company _____

Appendix H

Post Session Questionnaire

Check One:

Company Negotiator _____

Union Negotiator _____

Your Name _____

Please indicate your frank reactions to the contract and your observations of the negotiations by completing the statements below.

1. If you were free to change the duration of time that the contract you negotiated would be in force, would you have it last (check one)

() () () () ()
1 year 18 months 2 years 3 years 4 years

2. How would you rate the performance of the other negotiator?

() () () () ()
very poor poor fair good very good

3. How acceptable will the contract be to the party you represent?

() () () ()
unacceptable partially acceptable highly acceptable fully acceptable

4. In your opinion, who got the better deal in the final contract?

() () ()
Union Both sides fared equally well Company

5. In general, how defensible did you feel your own assigned positions were on the issues presented?

() () ()
more defensible than the just as less defensible than the
positions of the other side defensible positions of the other side

6. In your opinion, what was the order of importance of the issues? Rank 1 for most important, 2 for next most..., 9 for least important.

_____ Hospital & Medical Plan	_____ Night Shift Differential
_____ Wages	_____ Vacation Pay
_____ Sliding Pay Scale	_____ Work Rules Committee
_____ Seniority	_____ Check Off System
_____ Union representative	

7. How well did your assigned role in the experiment coincide with your own general beliefs and attitudes?

() () () () ()
completely coincided highly somewhat slightly not at all

Appendix I

Deviation Values for the Issues

Issue 1

Position	<u>1/4</u>	<u>1/3</u>	<u>3/4</u>	<u>3/4</u>	<u>4/4</u>
Deviation	-53	-44	-26	00	27

Issue 2

Position	<u>00</u>	<u>02</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>
Deviation	-107	-72	-36	-18	00	18	36	72	107	143	179

Issue 3

Position	<u>Fixed</u>	<u>1/4</u>	<u>2/4</u>	<u>3/4</u>	<u>Sliding</u>
Deviation	-89	-67	-44	-22	00

Issue 4

Position	<u>Departmental</u>	<u>Plant-wide</u>
Deviation	00	100

Issue 5

Position	<u>NO</u>	<u>YES</u>
Deviation	00	100

Issue 6

Position	<u>0</u>	<u>1</u>	<u>2</u>	<u>2 1/2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Deviation	-22	-18	-13	-11	-09	-04	00

Issue 7

Position	<u>2 wks. for 1 year service</u>	<u>3 wks. for 20 years service</u>	<u>3 wks. for 15 years service</u>	<u>3 wks. for 10 years service</u>
Deviation	00	02	09	22

Issue 8

Position	<u>YES</u>	<u>NO</u>
Deviation	-100	00

Issue 9

Position	<u>NO</u>	<u>YES</u>
Deviation	-100	00

Appendix I

Deviation Values for the Issues

Issue 1

Position	<u>1/4</u>	<u>1/3</u>	<u>3/4</u>	<u>3/4</u>	<u>4/4</u>
Deviation	-53	-44	-26	00	27

Issue 2

Position	<u>00</u>	<u>02</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>
Deviation	-107	-72	-36	-18	00	18	36	72	107	143	179

Issue 3

Position	<u>Fixed</u>	<u>1/4</u>	<u>2/4</u>	<u>3/4</u>	<u>Sliding</u>
Deviation	-89	-67	-44	-22	00

Issue 4

Position	<u>Departmental</u>	<u>Plant-wide</u>
Deviation	00	100

Issue 5

Position	<u>NO</u>	<u>YES</u>
Deviation	00	100

Issue 6

Position	<u>0</u>	<u>1</u>	<u>2</u>	<u>2 1/2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Deviation	-22	-18	-13	-11	-09	-04	00

Issue 7

Position	<u>2 wks. for 1 year service</u>	<u>3 wks. for 20 years service</u>	<u>3 wks. for 15 years service</u>	<u>3 wks. for 10 years service</u>
Deviation	00	02	09	22

Issue 8

Position	<u>YES</u>	<u>NO</u>
Deviation	-100	00

Issue 9

Position	<u>NO</u>	<u>YES</u>
Deviation	-100	00