# THE EFFECT OF PREFERENCE CONGRUENCY AND VESTED INTEREST ON ATTITUDE CHANGE AND SATISFACTION OF PARTICIPANTS IN A COLLECTIVE BARGAINING SIMULATION

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### **Abstract**

An empirical investigation was undertaken in an experiential oriented collective bargaining situation. A contract negotiation paradigm was developed for 80 students in an undergraduate wage and salary administration course. This paradigm utilized the concept of "vested interest" and demonstrates that this concept can be effectively incorporated into a collective bargaining game construct and, subsequently, enhance the utility of the pedagogy with respect to the maximization of experiential value. The methodology employed is presented as being composed of the psychological preparation, the exogenous and endogenous environments and the selection of the negotiating teams. The resultant game closely simulates the psychological environment of labor-management negotiations and, consequently, it is felt to significantly increase the value of the game as a teaching concept.

# **Background**

The use of role-playing and simulation games are not particularly new phenomena in the educational scene (1,2,3,4,5,6,7,8,9). The utilization of these techniques is predicated upon their ability to not only impart knowledge of the complexities in the actual situation to which the simulation is directed, but also to enhance perceptions of the students regarding the roles of the participants in the actual environment. The experiential quality of role-playing, moreover, makes these techniques particularly appropriate. The utility of these techniques, however, is not unquestioned by researchers in the area (10,11).

The addition of the element of "vested interest" permits the game to closely approximate the emotional climate of the actual situational environment toward which the game is directed. Additionally, the institution of "vested interest" serves to intensify and strengthen the role- commitment of the players (12,13). The consequent enhancement of the sense of "realism" in the game construct, therefore, provides for an increase in the depth of exposure of the students to the simulated process (10).

In order to enhance the role-playing ability of the student/participants and to cultivate a sense of "vested interest" in the qualitative outcome of the bargaining game, a period of psychological preparation and conditioning preceded the game. Since collective bargaining is a conflict resolution process, participants in the bargaining game need to be mentally conditioned to recognize issues in conflict and to effectively work within the antagonistic environment. In order to accomplish this an attempt was made to familiarize the students with the nature and purpose of collective bargaining, as well as the various strategies and tactics utilized in the achievement of stated bargaining objectives. In terms of psychological preparation for the bargaining sessions, therefore, the use of text, lecture, and discussion can be said to provide a philosophical and conceptual framework for the collective bargaining process.

#### Environment

The provisions for the establishment of the environmental configuration within which the bargaining game was set involved two interrelated dimensions. The first dimension can be termed the endogenous historical environment. This environment consisted of hand-outs containing the historical background of the company and union represented in the simulation and included a consolidated balance sheet and income statement of the company. In addition, a labor contract between the company and union, from which a new contract was to evolve was also presented to the participants.

The mock contract provided to the game participants was specifically constructed to be consistent with and reflect the simultaneously provided background material. In addition, the construction of the mock contract was such as to make it substantially viable and a relatively complete counterfeit of an actual labor agreement. However~ the construction of the contract was such as to give a slight management favoring bias. This bias was implanted in order to increase the possible scope of the simulation by widening the areas of conflict and, thereby, broaden the experiential learning universe of the student/participants.

The exogenous environment forms the other environmental configuration of the bargaining framework. The factors which were associated with this configuration were those which formed the "vested interest" concept of the simulation and provided for the timing and duration of the exercise. In this regard, also included within this environmental classification was the provision for the grading of team performance in the simulation.

In order to more closely simulate true labor-management bargaining, a strike deadline was artificially imposed. However, it was possible to permit a strike-no strike decision and to permit a short-term contract extension period for the purpose of settlement of relatively minor issues. A sizeable penalty was assessed for any teams which were involved in strikes. Therefore, a balance had to be arrived at in reaching the final settlement. The value received from the contract settlement had to justify the strike costs incurred and associated with the effort to achieve the settlement (13).

### Grading

Grade assignments were primarily determined by relative achievement of predesignated bargaining objectives. The methodology employed for the determination of these objectives utilized the concepts of "target", "will accept", and "resistance" points (14). Each negotiating team was required to submit, independently, its objectives within six class hours after being presented with the simulation materials. The submission was final and the points were not allowed to be changed during the course of the negotiations. The immutability of team objectives served the purpose of rigidifying individual and team commitments to the simulation and permitted continuity in strategic and tactical considerations.

The target points specified in the team objectives represented the ultimate goal with respect to either a specific issue or of the total package. Settlements which were below resistance points were serious detriments to the team's overall grade. Generally, negotiating teams would be willing to sustain a strike to prevent settlements where one or more issues would be resolved below their resistance point level. The will-accept points represented those points above which the teams would consider the settlement to have been relatively successful. Strategically, therefore, the negotiating teams strived for settlements falling within the range between their will-accept and target points. They also attempted to avoid settlements falling within the range between their will-accept and resistance points.

Team grade determination was a reflection of successfully implementing the strategies which they chose. Consequently, the highest grades were associated with the attainment of the specified target points. By directly relating individual grades to team goal achievement, the student/participants were provided with a sense of invested interest" not only in the absolute resolution of the conflict in the form of a new contract settlement, but also in the quality of the settlement with regard to specific issues or to a specific package settlement.

### **Methodology**

The experimental methodology used in the investigation dealt primarily with the selection of negotiating teams and the resultant changes in participant attitudes and satisfaction. Participants were polled as to which side of the bargaining table they would prefer, labor or management. On a random basis, half of the student/participants were given their choice of negotiating teams and the remainder of the students were assigned to the opposing teams. This resulted in 4 management teams composed of students who had requested the management position. These teams are referred to as Congruent Management teams. Due to the team assignment process, 4 labor teams were composed of students who had requested the management side. These teams are referred to as Incongruent Labor teams. Similarly, 4 labor teams were composed of students who had requested the labor side. These teams are referred to as Congruent Labor teams. Again due to the team assignment process, 4 management teams were composed of student/participants who had requested the labor position. These teams are referred to as Incongruent Management.

The negotiation alignments were developed in an attempt to investigate the affect of four different types of team arrangement upon the quality of the final settlement. These four types are:

Type one - Congruent Management versus Congruent Labor

Type two - Congruent Management versus Incongruent Labor

Type three - Incongruent Management versus Congruent Labor

Type four - Incongruent Management versus Incongruent Labor

The dependent measures included the differential attitude change of participants, satisfaction of the participants with the negotiating experience, and the overall quality of the final settlements. Attitude change and satisfaction of participants were measured with a pre/post test design.

Several hypotheses were developed and are presented below with a brief explanation of their underlying rationale.

Hypothesis One - Attitude change among the Incongruent teams will be greater than among the Congruent teams. It is hypothesized that incongruent teams would have greater attitude change due to their role reversals.

Hypothesis Two - Congruent teams will have greater satisfaction than incongruent teams as measured by items on the post- test questionnaire~ It is hypothesized that congruent teams will have greater satisfaction with their team assignment because their expressed values are more in line with their role as negotiators.

Hypothesis Three - Negotiation team leaders will have higher levels of satisfaction than non-leaders. This Is hypothesized as a test of Herzberg's two factor theory. Since leaders tend to have more enriched jobs; they tend to be more satisfied.

Hypothesis Four - Congruent teams will have more advantageous settlements, that is, will have the highest overall quality settlements. This is hypothesized to be the result of the congruent teams having more closely held values and, thus, being more rigid than the incongruent. Since each team has a "vested interest" in the outcome of the negotiation, it is felt that the most rigid team in any particular set of negotiations will gain the advantage in that negotiation set.

### **Findings**

It is observed from Table I that, with the exception of the first three questionnaire items, rather noticeable differences are present with respect to mean difference scores for the attitude changes for the management teams. Additionally, it is observed that with respect to two items the differences are found to be statistically significant

Standard Error .390 .289 .276 .319 .285 .380 .380 .291 .321 Incongruent Labor Difference Mean -.10 .25 -.30 04. .20 -.50 .05 07. -.65 Standard Error .285 419 .397 .345 .478 .332 .290 .316 804. .613 .425 Congruent Labor Difference Mean -.74 .89 -.45 -.26 14. .84 .32 .32 -.05 ATTITUDE CHANGES OF MANAGEMENT AND LABOR TEAMS BY CONGRUENCY Standard Error .420 .252 .376 .339 854. .276 .342 .452 . 526 .251 .303 TABLE I Management Incongruent Difference \*06. \*69\* Mean -.05 -.45 -.25 .10 .20 Standard Error .332 398 .355 .315 .373 303 .307 .354 .393 407 .521 significant at p < .05 Management Congruent Difference -.25\* \*07.-Mean -.05 -1.0 -.25 -.25 -.20 07. -.15 0 Item 9 10 to 6

at the p<.05 level. It is also of interest to note that the items with statistically significant differences relate to satisfaction with initial team assignments and attitudes towards distribution of company profits. In both instances, the management congruent teams evidenced a mellowing of attitude in favor of a sympathetic bias towards the labor side.

In the instance of the labor teams noticeable differences were observed for all questionnaire items. However, none of the differences were statistically significant. It is also observed that the mellowing of attitude toward the opposition was not evidenced to the same degree for the labor congruent team, which is somewhat due to their initial attitudinal perspective. However, it is seen that this set of teams was increasingly satisfied with their team assignment.

As a general construct, therefore, hypothesis one appears to be somewhat valid~ however, the lack of statistical significance limits definite conclusions. Additionally, the negotiation process appears to lead to a somewhat more liberal attitude on the part of all but the management incongruent negotiators with respect to profit distribution. In this latter instance, the attitudes appear to be more rigidified towards management, possibly due to the more conscious role demands of this group in that they initially desired to be labor team participants.

Table II exhibits the results of the testing of Hypothesis Two. This table shows the satisfaction scores on the post-test items and reveals no statistically significant differences among the negotiation team constructs. However, it is observed that the management congruent teams were somewhat more satisfied with their team assignments, group members and the negotiation experience than were the incongruent team members. In the instance of the labor teams, however, this situation was reversed, with the incongruent team members reporting higher satisfaction. The results of testing hypothesis two, therefore, are inconclusive. It is indicated that further investigation on this dimension is necessary, particularly to discover any intervening variables which would account for the disparity in satisfaction scores.

Table III presents the data pertinent to the testing of Hypothesis three. No statistically significant differences were observed for the satisfaction derived as indicated on the post-test questionnaire. However, there does appear to be a tendency for the group leaders to be somewhat more satisfied than their respective group members with the negotiation experience and with their team assignment. However, they tend to be somewhat less satisfied with their fellow team members. This may, in part, be a function of internal group relations and assignments, particularly since the group leader had but little formal authority and his role vis-à-vis the other group members was somewhat ambiguous.

Table IV shows the results of the testing of Hypothesis Four. It is evidenced that the congruent management team tended to have a somewhat better overall quality contract than did the incongruent management team. However, in terms of achieving the pre-stated objectives, both teams were equal. The difference in overall quality may be a result of the higher degree of commitment to the overall contract quality on the part of the congruent management team and, in a sense, reflects a greater invested interest".

### TABLE II

### SATISFACTION SCORES OF MANAGEMENT AND LABOR TEAMS BY CONGRUENCY (POST-TEST)

|      | Managemen       | t Congruent | Management | Management Incongruent |  |  |
|------|-----------------|-------------|------------|------------------------|--|--|
|      | Mean            | Standard    | Mean       | Standard               |  |  |
| Item | Scores          | Error       | Scores     | Error                  |  |  |
| 3    | 6.10            | . 240       | 5.95       | .266                   |  |  |
| 6    | 5.70            | .242        | 5.45       | .266                   |  |  |
| 9    | 5.20            | .367        | 4.50       | .352                   |  |  |
|      |                 |             | ·          |                        |  |  |
|      | Labor Congruent |             | Labor Inco | Labor Incongruent      |  |  |
| 3    | 5.79            | .271        | 6.05       | . 285                  |  |  |
| 6    | 5.42            | .318        | 5.50       | .414                   |  |  |
| 9    | 5.11            | .302        | 5.30       | .378                   |  |  |
|      |                 |             |            |                        |  |  |

### TABLE III

### SATISFACTION SCORES OF TEAM LEADERS AND OTHER TEAM MEMBERS (POST-TEST)

|        | Team I | Leaders  | Other Team Members |          |  |
|--------|--------|----------|--------------------|----------|--|
|        | Mean   | Standard | Mean               | Standard |  |
| Item 3 | Scores | Error    | Scores             | Error    |  |
| 3      | 5.63   | .352     | 6.05               | .136     |  |
| 6      | 5.75   | .266     | 5.47               | .181     |  |
| 9      | 5.50   | .274     | 4.95               | .206     |  |
|        |        |          |                    |          |  |

### TABLE IV

# CONTRACT QUALITY SCORES OF MANAGEMENT AND LABOR TEAMS BY CONGRUENCY

| Item<br>Overall          | Scores          | Standard<br>Error | Scores            | tandard<br>Error |
|--------------------------|-----------------|-------------------|-------------------|------------------|
| Quality                  | 5.50*           | .256              | 4.80*             | .200             |
| Objective<br>Achievement | 6.75            | .894              | 6.45              | .860             |
|                          | Labor Congruent |                   | Labor Incongruent |                  |
| Overall<br>Quality       | 4.26*           | .104              | 6.05*             | .153             |
| Objective<br>Achievement | 7.53            | .400              | 5.80              | .890             |
|                          |                 |                   |                   |                  |

<sup>\*</sup> significant at p<.05

A somewhat different pattern emerges, however, with respect to the labor teams. The congruent labor team exhibits a somewhat higher score with respect to the achievement of the pre-stated objectives. This may be due to their pro-labor bias and positional commitment which would tend to make them more rigid in the achievement of bargaining objectives than their counterparts on the incongruent labor teams. The incongruent labor teams, on the other hand, exhibit somewhat higher scores for overall quality of contract. This finding may be a reflection of a greater commitment to a pro-labor stance, particularly in view of their initial pro- management bias and forced team assignments.

### **Conclusions**

It appears from the foregoing that the concept of "vested interest" can be somewhat successfully implemented in a collective bargaining simulation and may tend to influence the satisfaction derived, overall quality, and degree of commitment evidenced during the negotiation experience. Furthermore, the congruence of team assignment to the bias of the student! participants also appears to be somewhat influential in affecting the attitudinal change of the participants in the gaming process, and particularly with respect to the satisfaction derived and labor-management bias relating to socio-economic issues.

It is also indicated that further research is desirable to uncover any intervening variables which impact upon the attitude changes which are evidenced in the negotiation process. Furthermore, additional research should be undertaken to refine and elaborate on the effects of both invested interest" and congruency of team assignment on the satisfaction, quality and attitude change resulting from the game construct. Specifically, this research should direct itself towards differing time frames, role specificities and grade weights assigned for the negotiation process.

#### **REFERENCES**

- 1. Blalack, Richard O. "The Use of Gaming as the Primary Pedagogical Technique for a Course in Collective Bargaining," <u>Proceedings of the Eastern Academy of Management</u>, (1973).
- 2. Brenenstuhl, Daniel C. "Cognitive Versus Affective Gains in a Computer Simulation," <u>Simulation and Games</u>, Vol. 6, (1975), pp. 303-311.
- 3. Carison, J.G.H. and M.J. Misshauk. <u>Introduction to Gaming: Management Decision Simulations</u>, (New York: John Wiley, 1972).
- 4. Davis, R.H. Review of ~Simulation and Gaming in Education," <u>Simulation and Games</u>, (December, 1970), pp. 437-440.
- 5. Gerstenfeld, A. and P. Maynard. "A Study of Management Games as a Training Method," <u>Training and Development Journal</u>, Vol. 25, (1971), pp. 12-15.

- 6. Joseph, Myron L. 'Role Playing in Teaching Economics," <u>American Economic Review</u>, Vol. 55, (1965), pp. 556-565.
- 7. Kenderdine, J. and B. Keys, Editors. "Simulation, Games and Experiential Learning Techniques: On the Road to a New Frontier," <u>The Proceedings of a National Conference on Business Gaming and Experiential Learning</u>, (April, 1974).
- 8. Kolb, D.A. "Individual Learning Styles and the Learning Process," Massachusetts Institute of Technology Sloan School Working Paper No. 535-71, (1971).
- 9. Lewis, Darrell R., D. Wentworth, R. Reinke, and W.E. Becker, Jr., <u>Educational Games and Simulations in Economics</u>, (New York: Joint Council on Economic Education, 1974).
- 10. Baldwin, John D. "Influences Detrimental to Simulation Gaming," <u>American Behavioral Scientist</u>, Vol. 12 (1969), pp. 14-21.
- 11. Cherryholmes, C. "Some Current Research on Effectiveness of Educational Simulations: Implications for Alternative Strategies," <u>American Behavioral Scientist</u>, Vol. 10, (1966) pp. 4-7.
- 12. Stagner, Ross and Hjalmar Rosen. <u>Psychology of Union-Management Relations</u>. (California: Wadsworth Publishing Company, Inc., 1969).
- 13. Pen, J. "A General Theory of Bargaining," American Economic Review, Vol. 42 (1952), pp. 24-42.
- 14. Walton, Richard E. and Robert R. McKersie. <u>A Behavioral Theory of Labor Negotiations</u>. (New York: McGraw-Hill Book Company, 1969).