

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

DIMENSIONS OF CONFLICT IN EXPERIENTIAL LEARNING

David R. Lambert, Case Western Reserve University
Nancy E. Uhring, St. Louis University

ABSTRACT

Since much of experiential learning takes place as a student group activity, there is a potential for intragroup conflict as a byproduct of the decision process. This research reports on a study of group conflict and its impact upon performance in a simulation. While various levels of conflict occurred in the groups, conflict appeared to be unrelated to performance.

INTRODUCTION

Much of experiential learning takes place in the context of a group, confronted with a problem, for which a solution is to be jointly developed. Given this circumstance, it is logical to suppose that some level of conflict is a natural by-product of decision making. This supposition is predicated upon the belief that two necessary conditions obtain: (1) as a rule, single decision alternative is not immediately recognized by all members of the group to be clearly superior to any other, and (2) the attainment of group goals is significant to group members. Since simulations are generally competitive, with winning as the group goal, and are typically complex in terms of information load and the richness of decision alternatives, decision making should be a non-trivial task for group members.

CONFLICT

Inter and intra-personal conflict are subject to definitions ranging from the innocuous level to that which threatens mankind. Both have been designated as functional, or, alternately dysfunctional activities.¹ Since this study is concerned with experiential learning group problem solving, intra-personal conflict is excluded from consideration. Likewise, the expected level of conflict does not approach that of physical violence. The question of the functional/dysfunctional nature of conflict in this context is an empirical one, which will be addressed later. For present purposes, conflict refers to a feeling of disharmony among group members which is produced or diminished by group activities. It is the by-product of opposition processes, such as competition, perceptions of status differences, and opinion differences concerning courses of action.

There are undoubtedly simulation situations in which group goals constitute a major source of conflict, or may in fact be the principal thrust of the simulation. The situation considered here is the more usual one in which the goal is given, such as winning, or 'survival,' etc., and is either not debated, or is dealt with by groups as a task preliminary to the primary problem-solving mission of the group. We are thus dealing with conflict arising not out of disagreement over what should be accomplished (i.e. the goal), but rather the means by which it is to be achieved. As a result of this fact, we would expect that the group decision process will tend to be oriented to problem solving and/or persuasion rather than bargaining or politicking -- although a bargaining solution to a disagreement might be the result of the failure of other modes

of resolution [3] (A possible bargaining scenario: "we'll do it your way this period, and my way the next.") While we might posit that intra-group processes in these learning situations may typically avoid the potentially destructive processes of bargaining and politicking, problem-solving and persuasive processes also produce conflict. As March and Simon note, joint decision making is innately conflict producing, especially given non-homogeneous group composition [3].

If there are reasons to suppose that conflict is present in groups involved in experiential learning, several issues present themselves:

- (1) What are the dimensions or characteristics of this conflict?
- (2) What group factors covary with conflict level?
- (3) Is conflict level associated with performance level?

Insight into these issues would be of use in understanding the individual and group impacts of conflict, suggest whether within-group conflict should be enhanced or diminished, and provide guidance for the manipulation of conflict level.

METHOD

Subjects

A convenience sample of sixty-nine students enrolled in an Advanced Marketing Management course at a midwestern university was used in the study. All participants were MBA candidates having divergent major academic areas of concentrations. Prior to involvement in the marketing simulation exercise, each student had self-selected membership in one of five teams within one of four industries. The team served as the primary unit of analysis.

Questionnaire Administration and Content

The measure of intra-group conflict utilized represents a variation of a 150 statement, 12 dimension instrument designed by Hemphill [2]. The original instrument was operationalized in number of independent studies [2,p.2]. It was originally designed as a measure of the fundamental interaction characteristics of social groups. The questionnaire was modified to yield information on eight independent variables representative of specific dimensions of within-group conflict relevant to the present research.

¹ For an overview of these issues see [1,4].

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

A Likert-scale was used with the implicit assumption of monotone items within a non-cumulative set. The scale consists of five categories of response: strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. The direction of responses were mixed to avoid bias due to response pattern. Directions providing explanations of each response option were specified. A statement reconfirming the confidentiality of the information provided, and a disclosure of the intended purpose of the data, concluded the questionnaire.

The questionnaire was administered to each group member during the eighth week of a ten week simulation. The timing of administration was designed to insure that repeated interaction between group members had occurred. A brief disclosure of the purpose of the survey was included in instructions to the respondents. The introduction provided assurance that the instrument was strictly a means of gathering information, and did not involve evaluation of the individual respondent or of the group.

Explanation of Variables

As administered, the group conflict questionnaire consisted of seventy-three group characteristic or attribute statement constituting eight specific dimensions. Also included were five items pertaining to demographic information for classification purposes.

The first and last statements were the measures of group conflict. Group conflict was assessed with reference to its intensity and frequency.

The eight dimensions representing the independent variables of the study were operationally defined as follows:

- A. Control -- the degree to which a group regulates the behavior of individuals while they are functioning as group members. Five items constitute the "control" dimension.
- B. Intimacy -- the extent to which members of the group are mutually acquainted. This variable reflects the types of interactions occurring between group members. Thirteen items constitute the intimacy dimension.
- C. Hedonic Tone relates to the atmosphere that exists within the group. Five items constitute the "hedonic tone dimension."
- D. Potency -- the degree of importance of the group to its members. Ten items constitute the potency dimension.
- E. Viscosity -- indicates the degree to which members of the group function as unit. Twelve items constitute the "viscosity" variable.
- F. Participation -- the degree of time and effort devoted to the group by the individual member. Six items constitute the "participation" variable.
- G. Polarization -- group orientation toward a single goal as indicated by a set of twelve items.
- H. Flexibility -- the degree of informality of group interaction. Eight items constitute the "flexibility" dimension.

Variable scores were derived by averaging the individual response values for the items in each dimension. The individual team member averages were then summed and divided by team size to yield a within team score ranging

between one and five for each dimension.

The dependent variable is the measure of group performance during the marketing simulation. To facilitate interpretation and to permit comparison of teams within different industries, group performance was indicated in the form of standardized net marketing contribution, in dollars, of each industry group. Net marketing contribution was standardized across industries to yield a mean of zero and standard deviation of one.

FINDINGS

Is Conflict Present?

The data suggest a moderate level of conflict overall, with some teams apparently experiencing frequent, intense conflicts. Team responses to questions dealing with the frequency and intensity of conflict reveal:

group members are frequently in conflict

$X = 3.208$

range 1.67 to 4.75 (where 1 = strongly agree)

conflict. . . is intense"

$X = 3.954$

range = 2.50 to 5.00 (where 1 = strongly agree)

Thus we see that both intensity and frequency of conflict are perceived as a part of group activity by members. The range of responses suggests that 20 percent of the teams experienced frequent conflict, as indicated by team response scores of less than three.

What Characterizes This Conflict?

Given that some level of conflict was present in the groups, we may next consider the nature of this conflict in terms of the eight dimensions previously discussed. Conflict per se was measured in terms of two variables, frequency and intensity. Since these variables would not be expected to be independent of each other, the appropriate method to relate them to the eight dimensions of conflict is canonical correlation. Canonical correlation permits us to assess the joint and individual effects of the eight dimensions of conflict upon a linear combination of conflict intensity and frequency.

Only the first canonical root was statistically significant: canonical correlation = .9321, $x^2 = 36.59$, $df = 16$, $p < .005$.² Table 1 presents an analysis of the canonical loadings.

² While it is recognized that this canonical correlation is likely to be inflated, and the canonical loadings possibly unstable, the canonical correlation is used in this exploratory effort to suggest which conflict dimensions hold the most promise for further examination. The small sample size relative to the number of variables precludes the use of deflating techniques.

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

TABLE 1
CANONICAL ANALYSIS OF CONFLICT
DIMENSIONS

Variable	Loading
Criterion Variable Set	
Conflict Frequency	.62424
Conflict Intensity	.56936
Predictor Variable Set	
Control	-.24280
Intimacy	-.39971
Hedonic Tone	-.36805
Potency	.49899
Viscosity	1.20916
Participation	-.05997
Polarization	.28526
Flexibility	-.04141

From the pattern of canonical loadings we see that (in descending order of importance) Viscosity, Potency, Intimacy, and Hedonic Tone are the most powerful predictors of conflict.³ In terms of criteria, Intensity and Frequency make approximately equal contributions to the association.

Examining the simple Pearson Product Moment correlations between each of these four dimensions and the two measures of conflict, we find the following:

- as the degree to which members function as a unit (i.e., viscosity) increases, conflict decreases;
- as the group atmosphere becomes more amiable (i.e., hedonic tone), conflict decreases;
- as the importance of the group to its members (i.e., potency) increases, conflict increases; and
- as mutual acquaintance among members (i.e., intimacy) increases, conflict increases.

Is Conflict Related to Performance?

In order to examine the impact of conflict upon team performance, a regression analysis was performed, with standardized net marketing contribution as the criterion variable, and conflict frequency and intensity as predictors. The resultant regression equation was not significant (F-ratio 1.0).

DISCUSSION

While the data suggest four dimensions which vary with the level of team conflict, and which intuitively might be argued to be the sources of conflict among team members, no association between team conflict and performance was found.

Two dimensions found to be significantly associated with conflict, Viscosity and Hedonic Tone, offer no unanticipated insight. As expected, low levels of conflict are associated with an amiable, cohesive atmosphere. However, the relationships generated by Potency and Intimacy were not as apparent in that the more important the group to its members, and the more familiar the members, the higher the level of conflict. Viscosity, the measure of group cohesiveness, emerged as the

most powerful modifier of conflict, having significant Pearson correlation coefficients beyond the .001 level.

The findings of no significant association between conflict and performance echoes much of the group conflict literature, which suggests that the conflict/performance association is not a direct one, but rather is modified by the means of conflict resolution [5]. The present research, therefore, sheds no light upon the issue of whether simulation administrator should seek to enhance or diminish group conflict. Rather, the research suggests that group performance is a function of some interaction other than intensity or frequency of conflict episodes and cannot, therefore, be conclusively seen to be either functional or dysfunctional.

Perhaps the major contribution of the present research is found in its implications for further study. If conflict is neither demonstrably good nor bad, perhaps simulation administrator's mission should be to minimize intra-group conflict in the interest of making the simulation experience as pleasant as possible. Toward this end, dimensions of conflict other than those measured in the present research should be explored (such as mixed vs. same gender in groups), and the factors which appear to be producers of the dimensions of conflict need explication (i.e., how do we increase viscosity?). Aside from the need for replication and extension, the limitations inherent in this research suggest a need for and direction of further studies.

Limitations associated with the use of paper-and-pencil self-reports of conflict rather than observation of group interaction present one area for further investigation. The use of only twenty groups in this research limited the choice of appropriate examination procedures, therefore, future studies should employ larger sample sizes. It should also be noted that the composition of the groups by sex rather than random selection may introduce a source of systematic bias of the findings.

REFERENCES

- [1] Deutsch, Morton, "Conflicts: Productive and Destructive," Journal of Social Issues, 25 (January 1969), pp. 7-41.
- [2] Hemphill, John K. Group Dimensions: A Manual for Their Measurement, Columbus, Ohio: Bureau of Business Research, Ohio State University, 1956.
- [3] March, James C. and Herbert A. Simon, Organizations, New York: John Wiley and Sons, 1958, pp. 129-130.
- [4] Nye, Robert D. Conflict Among Humans, New York: Springer Publishing, 1973, pp. xi-xii, 81-88.
- [5] Pondy, Louis R. Organizational Conflict: Concepts and Models, Administrative Science Quarterly, 12 (September 1967), p. 296-320.

³ Following the usual rule-of-thumb that only canonical loadings greater than .3 can be interpreted.