

Social exchange principles applied to small group discussions: Practising what we preach

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Social exchange theory is used to understand and predict small discussion group performance. Social exchange theory predictions concerning different discussion group formats are described. The predictions are shown to be useful in generating hypotheses about innovations in small group discussion formats. One means of increasing small group performance in the classroom, based on social exchange theory predictions, is extensively described.

One of the experiences all college students have is the "small group discussion." That students can learn much from their peers and from teaching their peers is a well known fact (Knapper, 1981 ; McKeachie, 1978) ; that this experience is often negative is also well known to any professor.

As psychologists, we should be better equipped than others to structure good small group discussions. Courtesy of Social Psychology (930), Human Relations (906,914), Group Processes (215), Industrial Psychology (911) and Organizational Development (410), we all know that: (a) 4-8 is the optimum group size, (b) one person will dominate the discussion time, (c) the most talkative person will not necessarily have the best ideas, (d) socio-emotional and task leaders will emerge if groups meet several times, (e) "democratic" leadership is preferable to "authoritarian" or "lais-

sez faire" styles, (f) both intra-group competitiveness as well as a norm of cohesiveness can reduce group productivity, etc., etc., etc. We also know that 5 persons working as individuals would have more original ideas than 5 people working in "brainstorming" groups. Most of us, however, are willing to put up with this limitation since groups are superior to individuals in evaluating solutions and because the group's product is better than that of the weaker individuals, who may learn from others (Harrison, 1976, pp. 437-477).

In spite of our vast storehouse of knowledge about groups and our best attempts to structure small group discussions so that the benefits of interaction are maximized, group discussions in psychology courses often leave a lot to be desired. (If you are in doubt about this statement, think of your own student days.) Social ex-

change theory offers solutions which can help to avoid many of the common problems encountered with small group discussions.

COMMON PROBLEMS WITH SMALL GROUP DISCUSSIONS

When prompted to relate their experiences with small group discussions, students have cited a variety of problems. For illustration, I'll use one popular format, although the difficulties discussed are relevant for a variety of other structures.

Let's assume that one week prior to the group meeting students are asked to read 30 pages of text and that they are handed 3 discussion questions which ask them to apply some of the principles from their reading. Students are told to think about the questions before coming to class. There are 6 students per group so that 6 or 7

groups are meeting simultaneously. The professor moves about checking on the progress of each group. S/he sees the following. There is animated discussion in one group. When approaching the group, s/he hears that hockey scores are being discussed. Deadly silence and intent faces are seen in another group. Upon closer observation, it is evident that students are copying the information from one student's question sheet. In another group, one student is holding forth - all others are silent. The professor listens to the student and shudders. Lots of laughter from another group; students have just discovered that two of them are both called Debbie.

When asked about their experiences, students have related something that goes like this. "Well, I've stopped going to group discussions. They're a bore. Last time half of us didn't bring the questions, never mind having thought about them. One of us had 'thought about' the questions, but he's weird; he talks all the time, makes no sense at all and we can't shut him up. Besides, he didn't read the text. Half of us read some of the assigned reading but we didn't remember it too well. One student read everything and made notes. We spent the group discussion time copying down her answers. What's the use of this? We didn't even understand what we were copying. I think my time is better spent in the library or in the cafeteria playing cards." If attendance and participation are not evaluated, students often miss class the day that discussion groups meet.

Frankly, I don't blame them. Although we would be better off lecturing, some of us diehards don't give up. During my 12 years at Dawson College I've tried many new techniques which, I thought, would improve the quality of group discussions. Some were disastrous. For example, when groups had to submit written answers to discussion questions, a number of students who had contributed nothing simply put their names on the work of the one student in the group who had actually prepared written answers to the discussion questions. Students who do the work usually feel angry and exploited and, if given a choice, will choose to work alone or will join another group if this is possible. Others are reinforced for not doing their work and have learned nothing. Students in other groups simply parcelled out the work by breaking the assignment down into components. Each student wrote out 1/6 of the work and group time was spent writing out one clean copy for

submission. In such groups, nobody has the whole picture and very little is learned.

One can recognize these tendencies in groups and shuffle their membership each time they meet. Such newly constituted ad hoc groups often ask for extensions as, usually, nobody has read the text, never mind thought about answers. Since ad hoc groups frequently have no leader, members fail to coordinate their schedules and rarely manage to meet to complete the assignment. Group members complain that they are evaluated unfairly. No wonder, since their group answers are never submitted and their individual grades suffer as a consequence.

There are many options, some less disastrous than the above example. The problem is that most of us do not use a model to guide us in our choice of techniques; the results are hit-and-miss. If, however, one examines the small group discussion from a cost/benefit or social exchange perspective, the consequences of various group techniques may be predicted before implementation. The disasters noted above, for example, are quite predictable - so are a variety of positive results.

SOCIAL EXCHANGE THEORY

Social exchange or equity theory is an adaptation from economic theory, first brought into the realm of social interaction by Thibaut and Kelley (1959) and Homans (1961). In social exchange theory (for recent developments, see Gergen, Greenberg & Wills, 1980) the idea of equity or justice is considered central and social interaction is conceptualized as a form of exchange. According to this formulation, each person seeks, within certain limits, to maximize his outcomes from interactions; he wants to get as many benefits as he can with as little cost as possible. As in social exchanges there are no set norms for what constitutes appropriate costs for given benefits, people typically compare their own costs/benefits ratio to that of others. What are others putting into this relationship? What are they getting out of it? Based on comparisons with others, people formulate their feelings about whether, in a particular exchange, equity exists. Equity exists when a person who compares himself to others perceives that the ratio of his outcomes: inputs equals the ratio of others' outcomes: inputs. When inequity exists, a person will usually choose the least costly means of restoring it. If inequity is due

to low inputs by others, a person will rapidly perceive the inequity and will be motivated to restore justice. This may be done in 4 ways: a person may reduce his own inputs, he can try to get others to increase their inputs, he can try to increase his own outcomes or he can try to reduce others' outcomes. Which means of restoring equity is used depends on the context. If repeated attempts to restore equity fail, the person may leave the situation. When inequity is due to the person's inputs being lower than those of others, the person will probably not perceive the inequity as readily and will probably not be highly motivated to restore justice (Adams, 1965). How often has a student asked you to raise his grade because he contributed more to a group project than did his partner? How often has the converse happened?

SOCIAL EXCHANGE IN ACADEMIC ACTIVITIES

In academic settings, normative expectations exist concerning what constitutes a fair relationship between outcomes and inputs. When considering students' academic activities in a course, inputs and outcomes can be defined in two different ways. One set of definitions applies to group activities while another set applies to non-group academic activities in the course.

Small group discussions Students who participate in small group discussions have group outcomes, such as the group task product, the effectiveness of problem solving by members, and the group "looking good" in front of others. These students also have group inputs consisting of information contributed, effort expended and preparation by members. Equity in the group exists when the ratio of a person's group outcomes to his group inputs is equivalent to the ratio of others' group outcomes to their group inputs, i.e., when

$$\frac{P.G.O.}{P.G.I.} = \frac{O.G.O.}{O.G.I.}$$

(for abbreviation see table 1)

Students' outcomes and inputs are only conceptually independent as, in a group situation, each student's group outcomes are determined by his own group inputs as well as by the group inputs of others.

Non-group academic activities. The second way of defining stu-

dents' outcomes and inputs is in terms of their non-group related academic activities (e.g., essays, exams, assignments, etc.) Student's non-group academic outcomes can be defined as grades on assignments, essays, exams, etc. and amount learned, while their non-group academic inputs are effort expended and preparation for assignments, essays, etc. Equity exists when the ratio of a person's non-group academic outcomes to his non-group academic inputs is equivalent to the ratio of other student's non-group outcomes to their non-group inputs, i.e., when

$$\frac{P.N.-G.A.O.}{P.N.-G.A.I.} = \frac{O.N.-G.A.O.}{O.N.-G.A.I.}$$

In this situation, a person's non-group academic outcomes are influenced solely by his own non-group academic inputs.

Relationship between small group discussions and non-group academic activities

All students in a course have both group and non-group academic inputs and outcomes. Equity and inequity can exist in both the group and in the non-group contexts. The variables can be best conceptualized in the familiar analysis of variance cube (see Figure 1).

In the traditional discussion group, students' non-group academic outcomes (e.g., grades) are generally not perceived to be related to group outcomes such as effectiveness of group

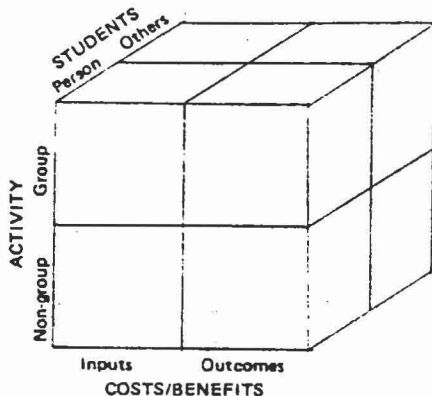


Figure 1. Analysis of variance representation of students' social exchanges in group and non-group academic activities.

Table 1

Definitions :	Example
Group Inputs :	information contributed, effort expended, preparation for group activities
Group Outcomes :	effectiveness of problem solving, group task product, group "looking good"
Non-Group Academic Inputs :	effort expended, preparation for assignments, papers, exams, etc.
Non-Group Academic Outcomes :	amount learned, grades on assignments exams, papers, etc.
Others' Group Inputs (O.G.I.) :	amount of information contributed by others, effort expended by others, others' preparation for group activities.
Others' Group Outcomes (O.G.O.) :	others' satisfaction with group experience, amount learned
Others' Non-Group Academic Inputs (O.N.-G.A.I.) :	effort expended by others, others' preparation for assignments, papers, exams, etc.
Others' Non-Group Academic Outcomes (O.N.-G.A.O.) :	amount learned by others, others' grades on assignments, papers, exams, etc.
Person's Group Inputs (P.G.I.) :	amount of information contributed by person, effort expended by person, person's preparation for group activities.
Person's Group Outcomes (P.G.O.) :	person's satisfaction with group experience, amount learned
Person's Non-Group Academic Inputs (P.N.-G.A.I.) :	effort expended by person, person's preparation for assignments papers, exams, etc.
Person's Non-Group Academic Outcomes (P.N.-G.A.O.) :	amount learned by person, person's grades on assignments, papers, exams, etc.

problem solving. Motivation for high quality group discussion is, therefore, unrelated to non-group academic outcomes. Motivation for costly group inputs, such as reading the assigned material, thinking about discussion questions, and making notes in preparation for group discussion, is provided solely by the value which students place on group outcomes. As the group outcomes are similar for the person and for others in the same group, the likelihood is that group inputs, both the person's and others', will be low, since inputs are costly for each individual while outcomes are not very important. Since amount of

information contributed by members determines group outcomes, group discussions are expected to be poor.

Inequity

Inequity occurs when each person compares himself to others in the same group and perceives that the ratios of his group or non-group outcomes to his group or non-group inputs, respectively, are not in balance with those of others, i.e., if

$$\frac{P.G.O.}{P.G.I.} \neq \frac{O.G.O.}{O.G.I.}$$

and/or

P.N.-G.A.O. O.N.-G.A.O.
 P.N.-G.A.I. O.N.-G.A.I.

If inequity occurs in the traditional discussion group, since group outcomes are similar for both the person and for others (i.e., Person's Group Outcomes = Others' Group Outcomes), inequity must be due to a discrepancy between the person's group inputs and the group inputs of others. If a person's group inputs (e.g., having prepared the discussion materials) are higher than those of others, i.e., if

Person's Group Inputs > Others' Group Inputs,

the person will probably choose the least costly means of restoring equity by decreasing his group inputs. If, on the other hand, inequity is due to the person's group inputs being lower than the group inputs of others, i.e., if

Person's Group Inputs < Others' Group Inputs,

the person will probably not bother to increase his group inputs as he may not have perceived the inequity. Should he have perceived the inequity, he will probably not increase his group inputs as this takes effort. Instead, he may prevail on others to decrease their group inputs, as this will restore justice at little cost to the person. Group outcomes, therefore, are expected to be very low, since all likely modes of restoring equity result in decreased group inputs. This should be reflected in poor discussion group performance, little learning and dissatisfaction on the part of all group members. Non-group academic outcomes, such as amount learned and grades on assignments can be adversely effected, as time spent in small group discussion could have been used to prepare assignments and to study for exams.

IMPROVING SMALL GROUP DISCUSSIONS

The key to good group outcomes are high group inputs. High group inputs may be achieved in a variety of ways: some are more feasible than others and some techniques must be used in conjunction with other methods. For example, group outcomes can be made very important, and group inputs can be made less costly. In addition, a) group and non-group academic outcomes can be linked, b) group inputs can be linked to non-

group academic outcomes, c) group inputs can be linked to non-group academic inputs, and d) group outcomes can be linked to non-group academic inputs.

Group discussions must be structured in such a way as to ensure that when inequity occurs, the most likely mode of restoring justice is the person increasing his group inputs or exerting pressure on others to increase theirs. Some suggestions for enhancing group outcomes follow.

Linking group inputs with non-group academic outcomes

Group inputs may be linked with non-group academic outcomes by evaluating each student's contribution to group discussions. This means of increasing group outcomes can be used either with ad hoc or with ongoing groups. Evaluation must, however, be carried out by the professor and each student's grade must be based solely on his own performance. Ranking systems cannot be used. If evaluation is carried out by group members, on a ranking basis, for example, a competitive set is established and high inputs by other group members will result in lowered individual outcomes for the person. In an ongoing group, each member would, therefore, try to get other students to lower their group inputs; this results, of course, in poor group outcomes and terrible discussion groups.

Linking non-group academic inputs with group inputs

Non-group academic inputs and group inputs may be linked by requiring students to submit to the professor, prior to group meetings, written answers to discussion questions. This means of increasing group inputs has the advantage that it can be used effectively in ad hoc groups as well as in ongoing groups. In ongoing groups, this means of increasing group inputs also has the benefit that, should inequity exist because a person's group inputs are higher than those of others, the person will probably try to restore equity by acting on others to increase their group inputs rather than by lowering his own.

Linking group outcomes with non-group academic inputs

Group outcomes and non-group academic inputs may be linked by requiring students to submit to the professor individual answers to questions related to discussion group topics 1 week after the group meeting. This techni-

que is likely to be more effective in ongoing groups than in ad hoc groups. As all students are made dependent on one another, should inequity exist because a person's group inputs are higher than those of others, the preferred means of resolving inequity is to have the person act on others to increase their group inputs.

This possibility is maximized if each group member is responsible for a different component of the discussion question and when individual submissions require that the various components of the discussion topic be integrated.

Linking group outcomes with non-group academic outcomes

Group outcomes may be linked to non-group academic outcomes by assigning group grades. This technique is likely to be effective only in ongoing groups. In ad hoc groups, members with high group inputs have the option of working with others in the class rather than acting on others to increase their group inputs. Even in ongoing groups, the discussion questions must be carefully structured. Students may divide the tasks in such a way that a good group answer is presented although no student has the whole picture (e.g., each student writes out 1/6th of the assignment). This technique works only if splitting up the work is not possible or if a good group answer requires that the components be integrated.

A SUCCESSFUL EXAMPLE

Professors structure their courses and their small group discussions in a variety of ways. The examples listed above were not meant to be exhaustive; they were intended to illustrate the utility of social exchange theory in structuring effective discussion groups. Betty Sunerton and I developed one format which we have found to be highly successful in our courses; this is described in detail below.

In each of my courses (Abnormal Psych. 213, General Psych. 102, Psych. of Sexual Behaviour 930), approximately 5 classes per term are devoted to small group discussions. Each class has 35 students, so 6 discussion groups (5-6 students each) per class meet simultaneously. Groups are ongoing; they have the same composition each meeting. Discussion questions, based on assigned readings, are distributed in duplicate to all students 1 week prior to the group discussion. Students are told that on the day of the discussion

they are to submit 1 copy of their answers to me and to keep 1 copy for use in their group discussion. The copy submitted to me is the student's entry permit to the group discussion; those who have not submitted individual answers are not permitted to attend. Attendance during group discussions is made important; I inform students that items related to discussion group questions will appear on exams.

I have no wish to grade 700 additional papers per term (35 students/course X 4 courses X 5 discussion assignments per term). Since students obtain corrective feedback from others during group discussions, they are told that individual submissions will not be graded and will not be returned (students keep a copy of their own answers). They are also told, however, that the quality of individual answers will be taken into consideration should a student's final grade be borderline between 2 adjacent grade categories (e.g., 59%, 69%, 79%, 89%). If work is of high quality and at least 4 discussion question answers are submitted on time, the final grade is boosted into the next grade category. For 1-2 page answers, this incentive is sufficient to motivate 80-90% of students to submit complete answers prior to all 5 discussion group meetings. Quality of submissions has been quite high.

When lengthier answers to discussion questions were called for, I have told students that in addition to the above incentives, the submission of complete answers to each discussion question will earn them 2% of their final grade. This additional incentive resulted in discussion question submissions in 80-90% of students when 4 pages of work were necessary per discussion group meeting. Quality of individual submissions, again, was high.

The task of groups is to arrive at the best group answers possible and to briefly report their answers to the rest of the class. During the discussion group meetings, as 6 groups of approximately 6 individuals per group are meeting, I circulate among groups to clarify issues, answer questions and help settle disputes. The level of the discussion in virtually all groups has been amazingly high.

At Dawson College, each course meets twice a week, 1-1/2 hr. each time. I use the 1st hour, approximately, for group discussion and leave the remaining 1/2 hour for groups to present their answers. Each group

presents its answer to one of the topics assigned for discussion. All groups have a chance to present their answer to 1 question or sub-topic during each discussion group class as discussion questions are broken down into several questions or sub-topics. Other groups add to or take issue with the presenting group's answers. This establishes a certain amount of informal inter-group competitiveness, thus making a group's presentation an achievement situation. As groups do not know in advance which part of a discussion assignment they will have to present, all groups prepare good answers to all component questions.

When asked, on course evaluations, how satisfied students are with small group discussions and how much they have learned in group discussions, most students have indicated that they were very satisfied and that they learned a great deal. When asked if the number of group meetings is adequate, too many or too few, less than 5% indicated that too many group discussions took place.

The solution described above has worked well for students and professors alike. Social exchange theory predicted that this would be the case. Group inputs are linked to non-group academic inputs, group outcomes are important, and group inputs are not costly. Students' non-group academic inputs, such as effort expended and preparation for assignments, are directly related to their non-group academic outcomes, such as amount learned and grades in the course. Group inputs (information contributed, effort expended, preparation for group activities) are, thus, high and group outcomes (effectiveness of problem solving, group task product, group "looking good") are also high. Needless to say, professors' outcomes (My students are learning something!) are high. This encourages professors to increase their inputs (effort, preparation, commitment, time, etc.) in order to ensure a fair social exchange.

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