

THE EFFECTS OF SUCCESS VS. FAILURE AND LEADER'S LPC ON MEMBER REACTIONS*

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This study, a laboratory experiment, investigated the effects of leaders' LPC and success vs. failure on the responses of group members. The subjects were 86 girls in senior high school in Japan. Each experimental group had in principle one leader and three members. The leader of each group was identified by a sociometric questionnaire. The task of the subjects was to discuss some adolescent problem behavior cases. The condition of success vs. failure was manipulated by a false feedback from the experimenter.

The main results were as follows:

- (1) The group members under high LPC leaders described their own group atmosphere as more favorable in the success condition than in the failure condition. A similar difference was not found for members under low LPC leaders.
- (2) The group members under high LPC leaders were more satisfied with the information given in the success condition than in the failure condition. This difference was not found for the members under low LPC leaders.

The response of an individual in a situation in which his performance is evaluated positively by a third person may differ from that in which it is evaluated negatively. When a group's performance is evaluated positively and when it is evaluated negatively, members' perceptions of their leader's behavior and group process may also differ.

Furukawa (1972) measured the influence of success vs. failure feedback concerning group performance on members' descriptions of their leader's behavior. He found that members in the success condition tended to perceive their leader's behavior as being high in both the Performance function (Misumi & Shirakashi, 1966; Misumi, 1972) and the Maintenance function (Misumi & Shirakashi, 1966; Misumi, 1972); members in the failure condition tended to perceive their leader's behavior as low in both the Performance function and the Maintenance function. This raises several interesting research questions. Is there a linear relationship

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between evaluation of performance and member's perceptions or attitudes and what factors affect this relation? Does leadership behavior and member's need for achievement affect this relationship?

Fiedler (1964, 1967) has developed a contingency model of leadership effectiveness. In this model he uses a leader's perception of his least preferred coworker (LPC score) (Fiedler, 1964) as an index of leadership style. A high LPC score indicates a tendency to evaluate favorably and to accept the least preferred coworker; a low LPC score indicates a tendency to evaluate unfavorably and to reject the least preferred coworker.

Ninane and Fiedler (1970) found that under failure conditions group members whose leaders had high LPC scores rated their own co-members and the group atmosphere more unfavorably than group members whose leaders had low LPC scores.

This experiment was designed to investigate the influence of leader's LPC and success vs. failure on group climate, group cohesiveness, task attractiveness, and attitudes toward information.

METHOD

Subjects

86 students in a girl's senior high school in Fukuoka, Japan participated in the experiment. At the beginning of the experiment subjects completed the LPC scale (Fiedler, 1967). The scale contains 16 eight-point bi-polar Semantic Differential type items as illustrated below:

Pleasant : — : — : — : — : — : — : — : Unpleasant
 Quarrelsome : — : — : — : — : — : — : — : Harmonious

Subjects are asked to think of people with whom they have performed a common task, and to rate the one person with whom they found it *most difficult to work*. Subjects were randomly assigned to 22 groups, subject to the restriction that each group maintained as a general rule four girls who were from the same class.

Their experimental task was to discuss behavior problem that might occur in a class situation, an extracurricular activity, and a home situation. They attempted to find solutions for each problem within the allotted ten minutes per case. The group's ideas and opinions were recorded by a member in each group.

At the conclusion of group discussion, the recorded ideas and opinions were rated using a 100 point scale by the third persons. Regardless of the groups' performance, half of them were given 70–80 points (success condition), the other half were given 30–40 points (failure condition). To enhance the face validity of the group ratings, the evaluators, who were graduate students in psychology, were introduced at the beginning of the experiment as members of the Japanese Clinical Psychology Association of Adolescence (a non-existent organization).

The leader in each group was identified after the discussion of the 3rd case problem by having subjects write down the name of the most influential person in her group. A leader could not be identified in all groups because in 14 groups two or more members received the same number of votes.

This experiment involved four dependent variables.

(1) Group atmosphere was rated after each group discussion by the subjects on an 8-item bi-polar adjective scale as below:

Friendly : — : — : — : — : — : — : — : Unfriendly
 Accepting : — : — : — : — : — : — : — : Rejecting

(2) Group cohesiveness was measured by 6 items (5 point scale) reflecting the ratee's perception of the attractiveness of her group and team members. Sample items are as follows:

Table 1. The Number of Groups and the Number of the Subjects

Success vs. Failure Leader's LPC	Success		Failure	
	high	low	high	low
number of groups	5	4	6	7
number of subjects*	14	11	18	21

*not include the number of the leaders.

'To what degree were the members of your group congenial?'

'On another opportunity, to what degree do you want to do the job with this members of your group?'

(3) Task attractiveness were measured by 5 items (5 point scale) reflecting the interest of and significance of the task. Sample items are as below:

'To what degree did you feel to have the interest to the task?'

'To what degree did you wish this kind of discussion could be brought to an end?'

(4) Attitudes toward information were measured by the following two items concerning satisfaction with the information given and asking for more information (both 5 point scale).

'To what degree did you understand the content or background of the case well by the information given?'

'If you had more information, did you think you could arrive at the better solution?'

Experimental Design

A random number table was used to assign 86 girls to the experimental groups, subject to the restriction that each group contained four girls. The number of experimental groups and the number of subjects are shown in Table 1. The data were analyzed by means of an unweighted mean analysis for a complete randomized factorial analysis of variance design (Kirk, 1968).

RESULTS

The effects of the leaders' LPC score and conditions of success vs. failure on group atmosphere are shown in Fig. 1(a). The statistical analysis of these data are shown in Table 2. The variable of success vs. failure on group atmosphere was not significant ($F=1.19$, n.s.), but the members under high LPC leaders described the group atmosphere as slightly more favorable than the members under low LPC leaders ($F=2.26$, $.25 > p > .10$). The interaction between leader LPC and success vs. failure was significant at .10 level. This interaction is shown in Fig. 1(a); it can be seen that the members under the high LPC leaders described their group atmosphere much more favorably for the success condition than for the failure condition. By contrast, the members under the low LPC leaders described their group atmosphere slightly less favorably for the success condition than for the failure condition.

Table 2. Analysis of Variance for the Group Atmosphere

Source	SS	df	MS	F
Success-Failure (A)	140.86	1	140.86	1.19
Leader's LPC (B)	267.05	1	267.05	2.26 $.25 > p > .10$
Interaction (A*B)	488.29	1	488.29	4.13 $.10 > p > .05$
W. cell	2130.14	18	118.34	

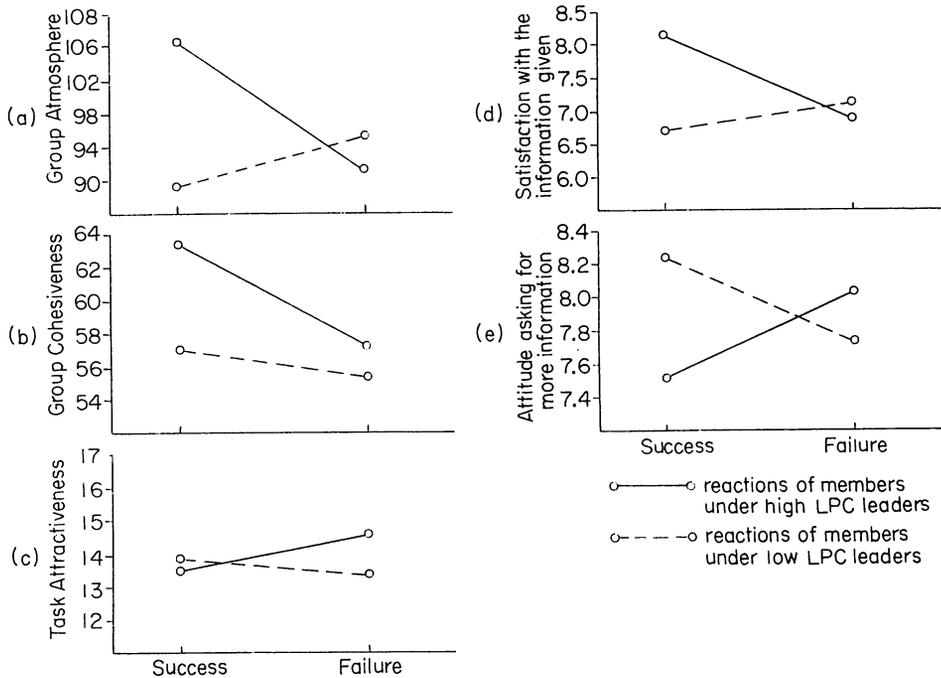


Fig. 1. The effects of leader's LPC and success vs. failure conditions on member reaction.

The data for group cohesiveness is shown in Fig. 1(b); the statistical analysis in Table 3. For the success condition, group cohesiveness is slightly higher than for the failure condition ($F=2.56$, $.25 > p > .10$). It is also slightly higher for groups who had high LPC leaders than for those who had low LPC leaders ($F=2.14$,

Table 3. Analysis of Variance for the Group Cohesiveness

Source	SS	df	MS	F
Success-Failure (A)	94.57	1	94.57	2.56 .25 > p > .10
Leader's LPC (B)	78.79	1	78.79	2.14 .25 > p > .10
Interaction (A*B)	28.25	1	28.25	—
W. cell	663.70	18	36.87	

Table 4. Analysis of Variance for the Task Attractiveness

Source	SS	df	MS	F
Success-Failure (A)	0.16	1	0.16	—
Leader's LPC (B)	2.05	1	2.05	—
Interaction (A*B)	2.68	1	2.68	—
W. cell	82.79	18	4.60	

Table 5. Analysis of Variance for 'the Satisfaction with the Information Given'

Source	SS	df	MS	F
Success-Failure (A)	3.10	1	3.10	2.90 .25 > p > .10
Leader's LPC (B)	1.79	1	1.79	1.60
Interaction (A*B)	3.95	1	3.95	3.69 .10 > p > .05
W. cell	19.24	18	1.07	

Table 6. Analysis of Variance for 'the Attitude Asking for More Information'

Source	SS	df	MS	F
Success-Failure (A)	0	1	0	—
Leader's LPC (B)	0.16	1	0.16	—
Interaction (A*B)	1.10	1	1.10	1.13
W. cell	15.13	18	0.84	

.25 > p > .10).

Data for task attractiveness are shown in Fig. 1(c) and the statistical analysis in Table 4. None of the tests were significant.

Data for satisfaction with the information given to group members is shown in Fig. 1(d); the analysis of data is given in Table 5. The group members' satisfaction with information given in the success condition was slightly higher than that in the failure condition ($F=2.90$, $.25 > p > .10$). The variable of leader LPC was not significant, but the interaction of leader LPC and success vs. failure reached at the .10 level. As shown in Fig. 1(d), the group members under the high LPC leaders were much more satisfied with the information given in the success condition than in the failure condition. However, for group members under low LPC leaders there is little difference between the success and failure sample means.

The data for desirability of providing more information is given in Fig. 1(e) and the statistical analysis in Table 6. The main factors and the interaction were not significant.

DISCUSSION

Fiedler (1964) has developed a contingency model of leadership effectiveness, which has stimulated much research (Fiedler, 1971; Shima, 1968; Shirakashi, 1968, 1969; Tanaka, 1972). Recently this model has been subjected to criticism (Ashour, 1973; Graen et al. 1970, 1971a, 1971b). Papers concerning the contingency model have discussed its validity in terms of the correlation between leaders' LPC and group effectiveness in various group-task situations. However, these papers have not dealt with the relationship between leaders' LPC and group process. Information concerning the relationship between leaders' LPC and members' attitudes toward the group, group atmosphere, and other variable on group process would help to clarify the interpretation of the psychological meaning

of LPC scores.

An examination of the sample data in Fig. 1(a) through 1(e) for the five dependent measures present in the present experiment reveal a consistent tendency for leader LPC to interact with the conditions of success and failure, although the tests of significance did not reach the customary criterion. These data suggest that social evaluation by a third person had a greater effect on members' attitudes toward group atmosphere, group cohesiveness, task attractiveness, and attitudes toward information, when their leaders' LPC score was high than when it was low.

Ninane and Fiedler (1970) attempted to investigate the relationship between leaders' LPC and members' reaction. In this laboratory experiment, they found that the relationship between leaders' LPC and members' reaction changed depending upon whether they were arranged to the success or to the failure condition. The group members under high LPC leaders described their group atmosphere and co-members more favorably in the success condition than in the failure condition, but a similar difference was not found for members under low LPC leaders. Ninane and Fiedler (1970) interpreted their experimental result as follows: "High LPC leaders tended to react more strongly to the failure condition. They appeared less able to cope with the implied negative evaluation by the experimenter... We must view the high LPC leaders as strongly influenced by social evaluation" (Ninane & Fiedler, 1970, p. 12). This interpretation appears to be an apt one and is consistent with our data in spite of the fact that Ninane and Fiedler (1970) included the data of both leaders and members, whereas the present experiment included only the data of members. The latter design is believed to be more sensitive to the effects of leader LPC.

The tendency mentioned earlier for leader LPC to interact will be seen in Fig. 1(b) for the variable of group cohesiveness. The cohesiveness of the group under high LPC leaders was more influenced by the success vs. failure condition than under the low LPC leaders.

A similar interaction trend can be seen in Fig. 1(d) for the dependent variable of information given. The group members under the high LPC leaders were more satisfied with the information given in the success condition than that in the failure condition. However, for group members under low LPC leaders there is little difference between the success and failure means. Thus the members under high LPC leaders were more strongly influenced by social evaluation than under low LPC leaders. The results of "the attitude asking more information" data in Fig. 1(e) show that the members under high LPC leaders want to have more information in the failure condition than in success condition, but the members under low LPC leaders ask for more information in the success condition than in failure condition. But this tendency was not statistically significant.

Shiflett and Nealey (1972) findings are relevant to the interpretation of our data since they found that high LPC leaders tended to suppress task-oriented behavior in weak power situation but exhibit a great deal of this behavior in strong power situation, however, low LPC leaders' behavior did not differ in these two power

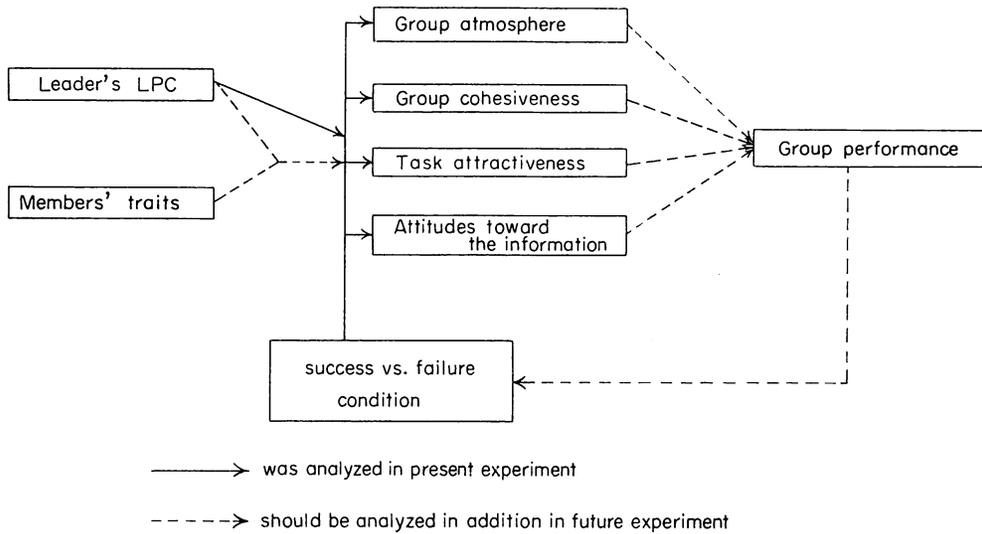


Fig. 2. Frame of references of the relationship of variables which are analyzed in present experiment and of variables which should be analyzed in addition in future experiment.

situation.

A model for the experiment is shown in Fig. 2. This model was suggested by the work of Yukl (1971). The model describes the structures of the present experiment and suggests directions for future researches. For example, in this experiment the success and failure conditions were produced by false feedback concerning a group's performance irrespective of real performance. In future experiments, the feedback should reflect the groups' real performance. Future research should also consider such variables as group member's ability, need for achievement, and personality.

Evaluation of group performance was done by using the 100 point scale described previously. In retrospect a more effective procedure would have been to use the scale developed by Furukawa (1972). In his procedure feedback concerning success vs. failure was given by means of a semantic differential type profile showing the false evaluation of the group's product. The advantage of Furukawa's procedure is that it does not affect the subjects' expressed level of aspiration as much as the 100 point scale that was used. Therefore, it provides a more precise measure of group aspiration level.

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