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BY
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EMERGENT LEADERSHIP AS A FUNCTION OF THE
LEADERS SOCIAL DISTANCE AND THE
TASK STRUCTURE

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To my parents I owe a special debt. They have been an inspiration and have constantly encouraged my educational pursuits.

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G.S.G.

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CHAPTER I

INTRODUCTION

Most of the leadership research in the past has concerned itself with two major questions: (a) What personality factors will determine whether a particular individual will become a leader? and (b) What personality factors determine whether a leader will become effective? The first of these questions is extensively reviewed by Stogdill (1948), Gobb (1954) and Hare (1962). These reviews point out that it is exceedingly difficult to isolate personality variables that determine leadership. Stogdill, for example, would probably conclude that situational variables are more important. A fruitful approach to the study of leadership might be the investigation of leader personality and situational factors. Evidence indicates (Burke, 1965) that the two are interactive variables in a leadership setting.

It is often assumed that when a group of people cluster together for any reason, as long as a goal is involved, a lead-

Although research has indicated that there is no particular combination of personality traits that insures effective or successful leadership in general (Stogdill, 1948, Gibb, 1954). Fiedler (1963) has nevertheless found evidence for what he calls "leadership effectiveness traits." Research on this problem by Fiedler shows that the prediction of group performance on the basis of leader attributes is also contingent upon the specific situational context in which the leader operates. Fiedler devised a personality measure that apparently predicts leader effectiveness. The scale can be scored either of two ways, one, scoring, obtaining a measure of the most preferred co-worker - (MPC) - and the other a measure of esteem for the least preferred co-worker - (LPC). Due to the important part these measures have in the present study, they will be discussed here in some detail.

The ASo score (assumed similarity of opposites) is obtained by asking a person to think of all the persons with whom he has ever worked. Then he describes (a) the person whom he considers his most preferred co-worker (MPC), and (b) the person he considers his least preferred co-worker (LPC). The The descriptions are made on an eight-point, bi-polar adjective check list similar in form to Osgood's Semantic Differential

(Osgood, 1957), using items descriptive of personality attributes, for example:

Pleasant__8 :_7 :_6 :_5 :_4 :_3 :_2 :_1 Unpleasant

Friendly__8 :_7 :_6 :_5 :_4 :_3 :_2 :_1 Unfriendly

Rejecting_8 :_7 :_6 :_5 :_4 :_3 :_2 :_1 Accepting

A person who perceives his most and least preferred co-workers as very similar will, therefore, have a high assumed similarity score, or in operational terms a small discrepancy score, while a person who strongly differentiates between these two 'opposites' will have a low ASo and, accordingly, a large discrepancy score.

A person with a high LPC score tends to see even a poor co-worker in a relatively favorable manner. A person receiving a low LPC score perceives his least preferred co-worker in an highly unfavorable, rejecting manner. LPC scores have been found to have a high internal consistency, with a split-half coefficient of over .90. High LPC leaders behave in a manner which promotes member satisfaction and lowers member anxiety. They are more compliant, more nondirective, and generally more relaxed, especially under pleasant and nonthreatening conditions.

Low LPC leaders, on the other hand, give and ask for more suggestions, are less inclined to tolerate or to make irrelevant comments, demand and get more participation from members, and are more controlling and managing in their conduct of the group interaction.

Employing the ASo scale, Fiedler (1958) studied fourteen high school basketball teams. Team effectiveness was defined as the percentage of games won by mid-season. The leader of the team was identified by means of sociometric preference questions. It was anticipated that "psychologically close" teams would be more effective than teams characterized by task-oriented, psychologically distant, less accepting relations. Contrary to expectations, team performance correlated negatively with the leader's ASo score. Thus, the better teams had active, psychologically distant leaders. A study of 22 student surveying parties cross-validated these findings (Fiedler, 1963). Thus, the ASo score and the personality attribute(s) which it reflected was clearly an important variable in the prediction of group performance. To examine further the question of whether or not effective teams choose low ASo leaders, or whether low ASo leaders make their teams effective, Fiedler

studied military groups in which the leaders were appointed by higher authority. The first two investigations dealt with B-29 bomber crews and Army tank crews. The criteria consisted of two uncorrelated bomber-crew tasks and two uncorrelated tank-crew tasks. In these studies significant relations between the leaders ASo and crew performance occured only if the leader was sociometrically the most chosen member of the crew.

The relationship between the ASo and crew effectiveness thus seemed to be contingent upon the sociometric choice pattern within the crew. Another study to support Fiedler is the investigation by Godfrey, Fiedler and Hall (1959) who studied 32 farm supply service companies. The formal leader of the executive group was the General Manager, and the chairman, or most influential member of the board of directors, was the leader of the policy-and-decision making body. This investigation demonstrated (a) that ASo scores predicted leadership effectiveness to the degree to which the leader had good interpersonal relations was contingent upon the leader's relations with the key group members, as well as upon the nature of the task. A series of four studies by Fiedler (1962) and a study by Burke (1963) show that permissive, accepting, high LPC leaders made better group performance on unstructured tasks

under relatively stress-free conditions. The managing, controlling, low LPC leaders, on the other hand, have better performance during structured, less pleasant, tension-arousing group climates.

Thus far it would seem that factors which determine the nature of leader attitudes are the leader's relationship with the group members and the nature of the task involved.

Three critical components which are likely to affect the leader's influence are postulated by Fiedler (1953); (a) his personal relations with members of his group, (b) the power and authority which his position provides (the legitimate power, in French's term, 1956), and finally, (c) the degree of structure in the task which the group has been assigned to perform.

Studies have shown that the power of the leadership position also plays an important role in determining the type of leadership behavior which will contribute to group effectiveness. French (1959), French and Raven (1958), and Anderson and Fiedler (1963) have shown that the leader who has a powerful position will behave differently than one who holds a very tenuous position. Since the dimension does not play an important role in the present study let it suffice to say that position power

includes the rewards and sanctions which are at the leader's disposal--his authority over his men.

According to Fiedler, the personal relationship between the leader and the members of his group is probably the most important single determinant of group processes which affect team performance. As has been discussed above (e.g. Godfrey, Fiedler, and Hall, 1959), the liked and accepted leader's interpersonal attitudes influence group performance to a significantly greater degree than similar attitudes of a leader who is sociometrically not accepted by his group.

The second important dimension describes the nature of the task in terms of its clarity and ambiguity, its requirements for group organization, and other similar factors that affect the leader's behavior. A task may be highly programmed, such as assembling a rifle or drafting, or it may be very unstructured, such as developing a personnel program for a company. In a structured task the leader serves primarily to supervise the implementation of the task order. In an unstructured task, on the other hand, the leader may know no more than his members do, and he cannot readily order anyone to execute such a task in a specific manner, as has been shown by Fiedler (1954,55,59) and

supported by Burke (1963). Low ASo or socially distant leaders should be more effective in a structured task whereas high ASo or socially close leaders are more effective in unstructured tasks. Shaw, (1963) in his Scaling Group Tasks, A Method for Dimensional Analysis, factor analysed tasks along four dimensions, they are: (1) Decision varifiability; the degree to which the "correctness" of the solution or decision can be demonstrated, (2) Goal Clarity; the degree to which the requirements of the task are clearly stated to the group members, (3) Goal Path Multiplicity; the degree to which the task can be solved by a variety of proceedures, (4) Solution Specificality; the degree to which there is more than one solution.

A recent study in leadership investigating the interactive aspects of the task and the ASo score of the leader is that by Burke (1963). In this intensive study, Burke was investigating the hypothesis that an adequate analysis of leadership must study the three interacting variables, the leader, the follower and the situation. The study consisted of varying, simultaneously, a personality dimension of the leader, a personality dimension of the follower, and group task. His groups consisted of five pledges from each of 24 social fraternities participating in an interfraternity contest in which two tasks

lasting 30 minutes each were performed. Each leader of the 24 groups was the pledge class president. These 24 leaders were classified as either high or low with respect to social distance (SD) as measured by Fiedler's, (1958), Assumed Similarity of Opposites (ASo) Scale. The 96 followers were classified as either high or low in need for achievement (nAch) as measured by the Edwards Personal Preference Schedule (1959). Each group performed two tasks, one immediately following the other. One task was the decoding of Morse code into words and sentences, highly structured, and the other task was a discussion problem, unstructured. Data concerning ratings of the general character of the group were gathered from a questionnaire given to the followers at the conclusion of each of the two tasks. Burke found that high SD leaders and low SD leaders were rated differently on the questionnaire according to the task involved. The results indicated that a socially distant leader had a slightly negative correlation to the discussion task and a positive correlation on the code task. He found, also that the followers perceived that there was a difference in the effectiveness of the leader as a function of the task.

Problem

The findings, especially that of Burke and Fiedler, are

that leadership effectiveness is a function of the: (a) interpersonal relationship of the leader to the group as a function of the leader's social distance, (b) the task structure and (c) the power position. In all of these previous studies the leaders have been either elected at some time before the experiment or appointed at the time of the experiment. The present study is aimed at investigating whether these variables will remain relevant when used with emergent leaders. Frequently in everyday situations, groups cluster in order to reach some specified goal without any apparent leader, for example an ad hoc group. If the phenomena of socially distant and socially close leaders being more effective with differently structured tasks can be generalized further, then the question is whether or not the findings hold for emergent leaders as well as appointed ones. This is an important question for social psychologists in that many of the groupings of people, with a goal, have no prearranged leader.

The present study attempts to investigate the phenomena of social distance of the leader as a function of group effectiveness on different tasks. A number of hypotheses will be studied. They are:

1. High SD persons as compared to low SD persons, will

be selected as leaders more often for the structured tasks.

2. Low SD persons, as compared to high SD persons, will be selected as leaders more often for the discussion task.
3. The group members will perceive a change in the task as reflected by their perceptions of the situation.
4. High SD emergent leaders will be more effective in terms of productivity on the structured task than low SD leaders.
5. Decisions made by groups during the discussion task should be more accurate when the leader is low with respect to social distance instead of high.

CHAPTER II

METHOD

Subjects:

Ninety male students from the University of Richmond were divided into 18 five-man groups. The age of the subjects ranges from 19 to 35 years, and all of the subjects were above the third year of college.

Instrument:

Assumed similarity of opposites. (Social Distance) All subjects took the ASo scale. This scale is the same as Fiedler's which was described earlier. (See Appendix A.)

Situational Change:

Each group performed two tasks. The code task included (1) translating code symbols into letters and (2) assembling these letters into finished products, words and sentences. The assembled words, if correctly decoded, constitute a paragraph from Emerson's essay on Compensation. Basic tools were provided

for the task in the form of a list of decoded symbols, the coded essay, and a page of instructions. (See Appendices B, C and D.) The group products were scored in terms of quantity and quality.

The group decision-making task consisted of a manned space survival problem. The problem concerns a forced landing on the moon, approximately two hundred miles from the crew's original rendezvous point. The group task involves the selection of priority equipment items to be taken on the lunar trip. Only two crew members are able to carry equipment. The equipment consists of fifteen items that survived the landing undamaged. Ss were asked to rank order the 15 items in terms of their importance for insuring survival. After each subject made his individual rank order the group then decided upon a consensual rank order. The Equipment Research Department of the National Aeronautics and Space Administration compiled a consolidated rank order for this problem. The problem is scored by determining the difference between each group's rank order and the National Aeronautics and Space Administration's expert rank order. The lower the difference score the more effective the group. (from Hall, 1963, see Appendix E.)

The basic assumption underlying the change in situational factors as a function of task variance is that different leadership skills were required and that a different kind of interpersonal relationship was maintained between leaders and followers. With respect to the code task, a leader must organize the group and divide the labor as fairly and effectively as possible so that productivity is maintained for the time alloted. The group leader may act in the capacity of work foreman and, accordingly, is responsible for the finished product. For the decision-making task, on the other hand, the emergent leader performs the role of a group discussion chairman. His main function is to guide the discussion so that the maximum of each member's knowledge concerning the discussion problem is utilized, thus, achieving the best decision his group can make.

Procedure:

The subjects were divided into five-man groups. Each group member was seated around the table wherever he desired. After being seated the subjects were given numbers on cards from 1 through 5. The numbers were given out randomly and each subject was thereafter identified by his number. Each subject was then given the Fiedler ASo scale. Next, the group was given the standard instructions for the code task, the materials needed,

and told to begin the task. After 30 minutes the group was told to stop and was given a reaction questionnaire. After 4 to 6 weeks the group returned and were administered the discussion task also followed by the reaction questionnaire. For half of the groups the sequence of tasks were reversed, so that order-effect was controlled.

Dependent Variables

The reaction questionnaire consists of questions in the form of a modified seven-point Likert Scale. The first section of questions are concerned with the subject's perceptions of the task, his commitment, satisfaction with his participation, and his choice of a group leader. The remaining questions are designed to obtain ancillary information concerning some structural dimensions of the group. In answering each question the S merely checked his response on a seven-point semantic-differential type scale. The assumption was that these two tasks would provide a change in some structured dimension of the group and, simultaneously, a change in the leadership situation. (See Appendix F.)

Emergent leadership was determined by at least one of two questions from the post-task questionnaire. The first question

asks the five to select the group member he believes exerted the most leadership, and the second question asks each group member to select the one person from the group he would want to be leader should the group perform the task again at some future time.

Experimental Design:

For the purposes of analysis, several different statistical techniques will be employed for investigating the plausibility of each of the hypotheses.

To determine if high socially distant persons, as compared to low socially distant persons, will be selected more often for the code task and, if low socially distant persons, as compared to high socially distant persons, will be selected more often for the discussion task, a two-by-two factorial design was employed to test for significant differences between the persons selected as leaders on each task.

Two-by-two repeated measure factorial designs were also performed on each variable of the reaction questionnaire to investigate whether group members did perceive a change in the task situation.

That high socially distant emergent leaders will be more

effective in terms of productivity on the structured task than low socially distant leaders, and, decisions made by groups during the discussion task should be more accurate when the leader is low with respect to social distance instead of high was investigated by employing the Spearmen Rho correlation adjusting for tied observations. ASo scores of the emergent leaders were correlated with their group performance scores on each task.

CHAPTER III

RESULTS

Leader Social Distance. According to Fiedler (1958), the individual who scores low on Assumed Similarity of Opposites (high social distance) is one who judges "the personalities of others in the light of their ability to do the job". Such an individual is relatively independent in his relations with others and is willing to reject a fellow co-worker who does not help accomplish a task. In contrast, the high ASo individual (low social distance) is quite concerned with his interpersonal relations and he "feels the need for the approval and support of his associates."

Hypothesis I, which states that high social distant persons compared to low social distant persons, will be selected as leaders more often for the structured task and, hypothesis II which states that low social distant persons as compared to high social distant persons will be selected as leaders more often

for the discussion task were analysed by testing the significance between the means of the ASo scores of the persons chosen as leaders on both tasks. It was found that the persons chosen as leaders on the structured task had significantly higher social distant scores than the persons chosen as leaders on the discussion task ($F = 2.97$, $p < .10$, Table 1).

Change in the Situation. Since a basic assumption of the study was that a change in the task constituted a situational change, this variability should be reflected in the various dependent variables, hypothesis III.

In describing the general character and atmosphere of the situation and group following the discussion task (as opposed to the code task), the members rated their groups as being more leader dominated ($F = 6.64$, $p < .05$, Table 2), as performing better ($F = 17.85$, $p < .05$, Table 3), as being more interesting ($F = 8.82$, $p < .05$, Table 4), as producing better results ($F = 11.75$, $p < .05$, Table 5) and as more satisfying ($F = 8.82$, $p < .05$, Table 6).

After the code task, as opposed to the discussion problem, the members described the group and the situation as feeling more personal responsibility toward the group product ($F = 16.3$,

TABLE 1

Summary of Analysis of Variance
of SD Scores by Task

Source	df	MS	F
$\bar{A}$ (Task)	1	51	2.97*
B (Order)	1	0	
AB	1	4	.24ns
Within Cell	32	17.25	
Total	35		

p .10

$p < .05$, Table 7), as being more work-oriented ($F = 9.26$, $p < .05$, Table 8), and as being tense ($F = 76.56$, $p < .05$, Table 9). Seven variables were not to differ between the two tasks (See Appendix G.) Thus, there was evidence to support the assumption that the two tasks involved a psychologically significant change in the situation.

Group Effectiveness and Leader ASo Score. Hypothesis IV which states that high socially distant emergent leaders will be more effective in terms of productivity on the structured task than low socially distant leaders, was not supported. Relating each code task score per group to emergent leader ASo score yielded a slightly positive, but not significant, correlation of .17.

Hypothesis V which states that decisions made by groups during the discussion task should be more accurate when the leader is low—with respect to social distance—instead of high, was also not supported yielding a correlation of .06.

TABLE 2

Summary of Analysis of Variance
of Domination by Leader of Group Interaction

Source	df	MS	F
Between Subjects	17		
A (Order)	1	49	1.88ns
Subj. w/gps	16	26	
Within Subjects	18		
B (Task)	1	93	6.64*
AB	1	1	0.14ns
B X Subjects			

p .05

TABLE 3

Summary of Analysis of Variance
of Group Members Feelings of Performance

Source	df	MS	F
Between Subjects	17		
A (Order)	1	0	ns
Subj. w/grs	16	70	
Within Subjects	18		
B (Task)	1	627	17.85*
AB	1	35	0.80ns
B X Subjects			

p .05

TABLE 4

Summary of Analysis of Variance
of Group Members' Interest on Task

Source	df	MS	F
Between Subjects	17		
A (Order)	1	374	4.40ns
Subj. w/gps	16	85	
Within Subjects	18		
B (Task)	1	300	8.82*
AB	1	7	0.20ns
B X Subjects	16	34	

p .05

TABLE 5

Summary of Analysis of Variance
of Groups perceptions of Productivity

Source	df	MS	F
Between Subjects	17		
A (Order)	1	22	0.20ns
Subj. w/gps	16	80.6	
Within Subjects	18		
B (Task)	1	576	11.75*
AB	1	7	0.14
B X Subjects	16	49	

p .05

TABLE 6

Summary of Analysis of Variance
of Members Feelings of Satisfaction

Source	df	MS	F
Between Subjects	17		
A (Order)	1	49	0.51ns
Subj. w/grps	16	96	
Within Subjects	18		
B (Task)	1	441	8.82*
AB	1	70	1.40ns
B X Subjects	16	50	

p .05

TABLE 7

Summary of Analysis of Variance
of Members Feelings of Responsibility

Source	df	MS	F
Between Subjects	17		
A (Order)	1	2	0.07ns
Subj. w/gps	16	28	
Within Subjects	18		
B (Task)	1	114	16.3*
AB	1	4	0.06ns
B X Subjects	16	7	

p .05

TABLE 8

Summary of Analysis of Variance
of Members Feelings of Being Work Oriented

Source	df	MS	F
Between Subjects	17		
A (Order)	1	107	2.14ns
Subj. w/gps	16	50.4	
Within Subjects	18		
B (Task)	1	361	9.26*
AB	1	107	2.74ns
B X Subject	16	38.6	

p .05

TABLE 9

Summary of Analysis of Variance
of Number Recalls of Tension

Source	df	MS	F
Between Subjects	17		
A (Order)	1	75	1.36ns
Subj. w/gps	16	54	
Within Subjects	18		
B (Task)	1	4950	76.56*
AB	1	22	0.33ns
B X Subjects	16	64	

* $p < .05$

CHAPTER IV

DISCUSSION

The principal contention underlying the present study was that leadership is a function of the leader's social distance and the task situation. The results of this study support this general hypothesis. In the present study the social distance of the leader made a difference in the perceived leadership situation. Also, when the task is changed, the group members perceived a change in the leadership situation. Interpersonal relationships between leaders and followers change as the leader's traits are varied.

Previous investigations have employed task change as a change in the leadership situation. The study of Carter, Haythorn and Howell, (1950) showed that groups tended to change leaders when the task changed from one requiring intellectual ability to one requiring mechanical ability. In the present

study ratings, which reflected perceptual changes, varied as the situation was changed. Burke, (1963) states, "As the situation changes demands on the leader change, and, as a result, the behavior of the leader as well as that of the followers, obviously changes. The question that arises is: what demands cause such a change." His approach in investigating the aspects of situational change was to determine which dimensions of a group vary as a function of the situational change. In the present study a number of variables were consistant in reflecting such a change. The first variable that was affected as the situation changed was the responsibility felt by the group members to the task, that is, group members felt more responsibility following the code task than they did following the decision-making task. The group members also felt that their groups were more work-oriented and there was a greater feeling of tension following the code task than after the discussion task. After the discussion task however, the group members felt more dominated by the leader, that the situation was more interesting, that they performed better and that the final product was better than after the code task.

Although the tasks were counter-balanced, order effects were investigated for significance on the above variables. Any

significant A factors or AB interactions would indicate order effects; there were none.

The last analysis was an attempt to relate group effectiveness and the leader's social-distance score. No relationship could be found. Fiedler (1958) suggests that a prerequisite before this relationship can exist is that the leader must be sociometrically accepted by the group. In his studies Fiedler used "natural groups" with preappointed leaders. In the present study the groups were "laboratory" and the leader was emergent during the task. This difference might account for the failure to replicate Fiedler's findings.

In conclusion, the present study indicates that the phenomena of differently structured tasks requiring different leadership skills is true for emergent, as well as pre-appointed, leaders. Further, a number of variables that reflect the changes in the task situation have been isolated. Further research in the area of leadership is necessary to answer these questions: (1) whether the group members pre-task acceptance of the leader is a function of group production, (2) does the fact that the code task was never completed have a bearing on the leader's effectiveness. Regarding the latter, some research has shown that incompleted tasks vary the costs and rewards of a group.

CHAPTER V

SUMMARY

In all of the previous studies, which investigated the leader's social distance as a function of the task situation, the leaders have been elected at some time before, or appointed at the time of the experiment. The present study was aimed at investigating whether these variables would remain relevant when used with emergent leaders.

Ninety subjects from the University of Richmond were divided into 18 five-man groups. Each group performed two tasks, lasting 30 minutes each. The tasks were counter-balanced and a time period of not less than two weeks was allowed between tasks. In performing the code task, the groups had to decode a collection of 1120 symbols into meaningful words and sentences. The second task was a decision-making problem in which each group discussed a lunar travel problem and made a consensual rank-order of their importance. Data concerning selection of

the leader, personal reactions to the task and ratings of the general character of the group, were gathered from a reaction questionnaire given to the group members following each of the two tasks.

The results showed that the social distance scores of the emergent leaders, on the two tasks, were significantly different. The structural (code) task elicited a more socially distant leader than the decision-making task. The two tasks were perceived differently by the group members on eight different dimensions.

The results did not support the theoretical assertion that the higher the social distance score of the leader on the code task the better the group product on that task, or, the lower the social distance score of the leader on the decision-making task, the more accurate the decisions should be, on that task.

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APPENDIX A

Name: _____ Group: _____ Date: _____

Think of the person with whom you can work best. He may be someone you work with now, or he may be someone you knew in the past.

He does not necessarily have to be the person you like best, but should be the person with whom you have been able to work best. Describe this person as he appears to you.

										Score
1.	Confident	8	7	6	5	4	3	2	1	Not Confident	____
2.	Self-Assured	8	7	6	5	4	3	2	1	Not Self-Assured	____
3.	Self-Reliant	8	7	6	5	4	3	2	1	Dependent on others	____
4.	Hard Working	8	7	6	5	4	3	2	1	Not Hard-working	____
5.	Ambitious	8	7	6	5	4	3	2	1	Not Ambitious	____
6.	Productive	8	7	6	5	4	3	2	1	Not Productive	____
7.	Business-like	8	7	6	5	4	3	2	1	Casual	____
8.	Dependable	8	7	6	5	4	3	2	1	Not Dependable	____
9.	Enthusiastic	8	7	6	5	4	3	2	1	Not Enthusiastic	____
10.	Not Easily Discouraged	8	7	6	5	4	3	2	1	Easily Discouraged	____
11.	Patient	8	7	6	5	4	3	2	1	Impatient	____
12.	Close	8	7	6	5	4	3	2	1	Distant	____
13.	Warm	8	7	6	5	4	3	2	1	Cold	____
14.	Sociable	8	7	6	5	4	3	2	1	Not Sociable	____
15.	Not Easily Annoyed	8	7	6	5	4	3	2	1	Easily Annoyed	____
16.	Considerate	8	7	6	5	4	3	2	1	Not Considerate	____
17.	Satisfied	8	7	6	5	4	3	2	1	Not Satisfied	____
18.	Agreeable	8	7	6	5	4	3	2	1	Not Agreeable	____
19	Sympathetic	8	7	6	5	4	3	2	1	Not Sympathetic	____
20.	Not Stubborn	8	7	6	5	4	3	2	1	Stubborn	

Name: _____ Group: _____ Date: _____

Think of the person wi whom you can work least well. He may be someone you work with now, or he may be someone you knew in the past.

He does not have to be the person you like least well, but should be the person with whom you had the most difficulty in getting a job done. Describe this person as he appears to you.

										Score
1.	Confident	8	7	6	5	4	3	2	1	Not Confident	____
2.	Self-Assured	8	7	6	5	4	3	2	1	Not Self-Assured	____
3.	Self-Reliant	8	7	6	5	4	3	2	1	Dependent on others	____
4.	Hard-Working	8	7	6	5	4	3	2	1	Not Hard working	____
5.	Ambitious	8	7	6	5	4	3	2	1	Not Ambitious	____
6.	Productive	8	7	6	5	4	3	2	1	Not Productive	____
7.	Business-like	8	7	6	5	4	3	2	1	Casual	____
8.	Dependable	8	7	6	5	4	3	2	1	Not Dependable	____
9.	Enthusiastic	8	7	6	5	4	3	2	1	Not Enthusiastic	____
10.	Not Easily Discouraged	8	7	6	5	4	3	2	1	Easily Discouraged	____
11.	Pateint	8	7	6	5	4	3	2	1	Impatient	____
12.	Close	8	7	6	5	4	3	2	1	Distant	____
13.	Warm	8	7	6	5	4	3	2	1	Cold	____
14.	Sociable	8	7	6	5	4	3	2	1	Not Sociable	____
15.	Not Easily Annoyed	8	7	6	5	4	3	2	1	Easily Annoyed	____
16.	Considerate	8	7	6	5	4	3	2	1	Not Considerate	____
17.	Satisfied	8	7	6	5	4	3	2	1	Not Satisfied	____
18.	Agreeable	8	7	6	5	4	3	2	1	Not Agreeable	____
19.	Sympathetic	8	7	6	5	4	3	2	1	Not Sympathetic	____
20.	Not Stubborn	8	7	6	5	4	3	2	1	Stubborn	____

APPENDIX B

A	'/	'	E
[illegible]	/'''	''	I
C	/'/'	'''	S
[illegible]	/''	''''	H
[illegible]	'	'/	A
F	''/'	'//	[illegible]
[illegible]	//'	'///	J
[illegible]	''''	''/	[illegible]
I	''	''/'	P
J	'///	'''/	V
K	/'/	/	T
L	'/''	//	[illegible]
[illegible]	//	///	O
[illegible]	/'	/'	[illegible]
O	///	/''	D
P	'//'	/'''	B
[illegible]	//'/	//'	C
R	'/'	//''	Z
S	'''	/'/	[illegible]
T	/	/''/	X
U	''/	/'//	[illegible]
[illegible]	'''/	//'/	[illegible]
[illegible]	'//	'//'	P
[illegible]	/''/	'/''	L
[illegible]	/'//	'/'	R
Z	//''	/'/'	C

APPENDIX C

Job Specifications

'//	'	'/	'/'	'	///	''/'	/	'	/'
//	'/	/''	'	/	///	''/'	'	'	'/''
/	''''	'/	/	/	''''	'	'/'	'	''
'''	'/	/'	///	/	''''	'	'/'	/'//	///
''/	/	''''	'/	/'	/''	'/	//'	'	/
''''	'/	/'	/	''''	'/	/	'//	''''	''
/'/'	''''	''	'''	//	'	'/	'''	''/	'/'
'	/''	''/'	'/'	///	//	/	''''	'	/'//
'	/'	'/'	///	''/'	///	''/	'/'	/'	'/
/	''/	'/8	'/	'/''	/'''	''	'/'	/	''''
'''	///	//	'	/	''''	///	''/	//'	''''
/	'''	'/	'/''	'//	'/	/'//	'''	''/'	''
/'	/''	''/	'''	/'//	///	''/	/'	//'	'/

A P P E N D I X D

TASK DESCRIPTION

Rationale: The following exercise is designed to represent a typical industrial situation in which work is done by employees under the supervision of an immediate foreman and a general supervisor. As in most industrial situations, production is scaled on the basis of both quantity and quality of the goods produced. In case of errors in the work, the unit is discarded and counted against the employee and his work group in that they do not receive credit for the badly produced piece.

Task: The analogue of an industrial situation, at the operative end, is provided through the task of (1) translating code symbols into letters (the basic units of Production) and (2) assembling these letters into finished products, i.e., words. The assembled words, if correctly done, constitute a paragraph from Emerson's essay on Compensation. Thus, as in industry, the task in this exercise is designed to serve as the basis of organizational objectives; in this case, a close approximation of the original paragraph. With a task of this sort, all of the usual work functions found in industry can be performed, from planning and forecasting to division of labor to supervision of production.

Example of the task: Your job, as a group, will be to take "Job Specifications" similar to the following example and turn them into meaningful products as in example 2.

Example 1.

T	H	E	Q	U	I	C	K	B	R	O
/	'''	'	//'/	''/	''	/'/'	/'/	/'''	'/'	///
W	N	F	O	X						
'//	/'	''/'	///	/''/	etc.					

Example 2.

The quick brown fox jumped etc.

Note: Basic tools will be provided for the job in the form of a list of decoded symbols so that the operator can identify the code symbol on the job specification and then find its letter equivalent on the "Basic Tool" form. The composition of wrods is left up to individual capabilities and is a test of the operator's ability to assemble his basic unite into a finished product.

A P P E N D I X E

GROUP DECISION FORM

Instructions: You are a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some two hundred miles from the rendezvous point. During entry and landing, much of the equipment aboard was damaged and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the two hundred mile trip. Below are listed the 15 items left intact and undamaged after landing, Your task is to rank order them in terms of the importance in allowing your crew to reach the rendezvous point. Place the number 1 by the most important item, the number 2 by the second most important and so on through number 15, the least important.

NOTE: Only two crew members are in any condition to carry equipment.

_____ Box of matches

_____ Food concentrate

_____ 50 feet of nylon rope

_____ Parachute silk

_____ Portable heating unit

_____ 2 - .45 calibre pistols

_____ 1 case dehydrated Pet Milk

_____ 2 - one hundred-pound tanks of oxygen

_____ Stellar map (moon's constellation)

_____ Life raft

_____ Magnetic compass

_____ 5 gallons of water

_____ Signal flares

_____ First aid kit containing injection needles

_____ Solar-powered radio

APPENDIX F

PRIVATE REACTION QUESTIONNAIRE

Instructions: The success of this experiment depends on your honest assessment and reporting your opinions about the task just completed. Feel free to express your true evaluations. These data are confidential and anonymous. No one but you and the investigator will see them.

Check only one statement per question:

1. How clear to you were the method, organization, and instructions used by your group? They were:
   _____Completely clear
   _____Quite clear
   _____Moderately clear
   _____Neither very clear nor very unclear
   _____Moderately unclear
   _____Quite unclear
   _____Completely unclear

2. How much satisfaction did you feel with the amount and type of your participation during the task period? I felt:
   _____Completely dissatisfied
   _____Quite dissatisfied
   _____Moderately dissatisfied
   _____Neither very satisfied nor very dissatisfied
   _____Moderately satisfied
   _____Quite satisfied
   _____Completely satisfied

3. How committed were you to the final product of the task? I was:
   _____Completely uncommitted
   _____Quite uncommitted
   _____Moderately uncommitted
   _____Neither very committed nor very uncommitted
   _____Moderately committed
   _____Quite committed
   _____Completely committed

4. How much responsibility for the successful attainment of production requirements or consensual decision did you feel? I felt:
   _____Absolutely no responsibility
   _____Almost no responsibility
   _____Moderate irresponsibility
   _____Neither very responsible nor very irresponsible
   _____Moderately responsible
   _____Quite responsible
   _____Complete responsibility

5. Who do you think lead the most on this task? ___1, ___2, ___3, ___4, ___5

6. If your group were to meet again for the purpose of perfoming tasks similar to the one you have just completed who would you select as leader?
   _____No. 1 ___No.2 ___No.2 ___No.3 ___No.4 ___No.5

7. To what extent did the group leader accept and incorporate suggestions made to him by group members? He:
   _____Completely accepted them
   _____Accepted them often
   _____Accepted them sometimes
   _____Neither accepted them nor rejected them
   _____Rejected them sometimes
   _____Rejected them often
   _____Completely rejected them

8. In terms of getting the job done, how effective was your group leader? He was:
   _____Extremely effective
   _____Quite effective
   _____Moderately effective
   _____Neither very effective nor very ineffective
   _____Moderately ineffective
   _____Quite ineffective
   _____Extremely ineffective

9. How motivated were you in performing the task?
I felt:

_____ Completely motivated
_____ Quite motivated
_____ Moderately motivated
_____ Neither very motivated nor very unmotivated

10. How would you describe guoup member interaction? It was:

_____ Completely dominated by sone members other than the leader
_____ Dominated by one or more of the group members (other than the leader) most of the time
_____ Moderately dominated by ore or more of the groups members other than the leader
_____ Not dominated by anoone
_____ Moderately dominated by the leader
_____ Dominated most of the time by the leader
_____ Completely dominated by the leader

11. In general, how well do you think yo your group did on the task just compleaed?
We performed:

____ Extremdly poorly
____ Quite poorly
____ Moderately poorly
____ Neither very well nor very poorly
____ Moderately well
____ Quite well
____ Extremely well

12. How interesting was thetask to you?
It was:

____ Extremely interesting
____ Quite interesting
____ Moderately interesting
____ Neither very interesting nor very dull
____ Quite dull
____ Extremely dull

Based on the task that you have just completed, rate the general character of your group in terms of the following factors:

Productive	———————————	Nonproductive
Satisfying	———————————	Dissatisfying
Dominated	———————————	Democratic
Bull Session	———————————	Work Oriented
Tense	———————————	Relaxed
Member-Controlled	———————————	Leader-Controlled

A P P E N D I X G

Summary of Analysis of Variance
of Members Perception of Goal Clarity

Source	df	MS	F
Between Subjects	17		
A (Order)	1	3	0.06ns
Subj w/gps	16	49	
Within Subjects	18		
B (Task)	1	41	0.50ns
AB	1	69	0.88ns
B X Subjects	16	81	

p .05

Summary of Analysis of Variance
of Members Feelings of Commitment

Source	df	MS	F
Between Subjects	17		
A (Order)	1	3	0.50ns
Subj w/gps	16	60	
Within Subjects	18		
B (Task)	1	13	0.03ns
AB	1	49	1.00ns
B X Subjects	16	48	

p .05

Summary of Analysis of Variance
of Members Perception of the Group Control

Source	df	MS	F
Between Subjects	17		
A (Order)	1	16	0.12ns
Subj w/gps	16	137	
Within Subjects	18		
B (Task)	1	144	1.58ns
AB	1	214	2.35ns
B X Subject	16	90.6	

p .05

Summary of Analysis of Variance
of Member Perception of Leader
Incorporating Suggestions

Source	df	MS	F
Between Subjects	17		
A (Order)	1	0	0.00
Subj w/gps	16	50.3	
Within Subjects	18		
B (Task)	1	100	3.12ns
AB	1	2	0.06ns
B X Subject	16	32	

p .05

Summary of Analysis of Variance
of Member Perception of Leader Effectiveness

Source	df	MS	F
Between Subjects	17		
A (Order)	1	81	1.09ns
Subj w/gps	16	74	
Within Subjects	18		
B (Task)	1	81	2.13ns
AB	1	13	0.34ns
B X Subject	16	38	

p .05

Summary of Analysis of Variance
of Members Motivation

Source	df	MS	F
Between Subjects	17		
A (Order)	1	64	1.28ns
Subj w/gps	16	50	
Within Subjects	18		
B (Task)	1	64	1.30ns
AB	1	11	0.22ns
B X Subjects	16	49	

p .05

Summary of Analysis of Variance
of Member Perception of Democratic Leader

Source	df	MS	F
Between Subjects	17		
A (Order)	1	19	0.22ns
Subj w/gps	16	83	
Within Subjects	18		
B (Task)	1	107	1.29ns
AB	1	93	1.12ns
B X Subject	16	83	

p .05

VITA

George Stephen Goldstein was born in New York City, on May 31, 1941, the son of Arnold L. and Rae Goldstein. He graduated from Martin Van Buren High School, Queens Village, New York in June of 1959. He received the B.A. degree in psychology from Florida State University in June, 1963. He is currently enrolled in the Graduate School of the University of Richmond and expects to be awarded the M.A. degree in psychology August, 1965.

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