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FOLLOWER ACCEPTANCE OF VARIABILITY OF LEADERSHIP STYLE IN DECISION-MAKING

By

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ABSTRACT

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This study is a comparison of leadership models to test the hypothesis that models advocating variability of leader action are less satisfactory to subordinates than models advocating uniformity of leadership action. Specifically this study is a test of the Vroom and Yetton normative model of leadership, to explore if it is superior to authoritarian, consultative, and group-oriented models.

The study used role-playing procedures, in which 280 undergraduate subjects read descriptions of a series of group decision-making situations and imagined themselves to be one of several subordinates to a leader. The decision-making situations given all subjects were identical, but the leader's behavior varied depending upon the leadership condition to which the subjects were assigned. The experimental design for the study was a 5 x 2 x 2 design with 14 subjects in each cell; the independent variables examined were leadership style (normative, authoritarian, consultative, group-oriented, or random), subordinate knowledge of leadership style (prior knowledge or no prior knowledge), and sex of subject (male or female).

Analysis of data indicated that subordinate satisfaction was influenced by leadership style, but this difference was not between uniform and variable styles of leadership; rather authoritarian leadership was found to be less desirable than any of the other four leadership styles. Moreover, females were more satisfied with leader behavior than males in all conditions, while prior knowledge of leader behavior had no effect upon subordinate satisfaction.

Other analyses revealed additional interesting findings. Subordinates whose expectations of leadership style were met were more satisfied than those whose expectations were not met. Nearly 50% of subjects preferred to work for a normative style leader, while 25% preferred a group-oriented leader and 25% preferred a consultative leader. Subjects with aspirations to leadership roles were more satisfied working for leaders who used participatory or variable leadership styles than for leaders using uniform, non-participatory leadership styles.

This study demonstrated that the Vroom and Yetton normative model of leadership is no less satisfactory to subordinates than other leadership models and is a viable model from this standpoint. However, its superiority to other approaches has yet to be established.

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INTRODUCTION

In their book Leadership and Decision-Making, Vroom and Yetton (1973) present a model for leader behavior in group decision-making situations. The Vroom and Yetton model, which they term the normative model, is a situation-oriented plan of leadership in which several variables in each decision-making situation determine which of several possible leadership styles a leader should utilize. This normative model departs from approaches advocated by other accepted theories of leadership (e.g. Blake and Mouton, 1964; Fiedler, 1967; Likert, 1967). These alternative models identify different styles of leadership, but they tend to prescribe one leader style that they assert should be used in a uniform fashion over all situations. Various writers use different terminology for the leadership styles examined in this study, but all descriptions fall on a continuum from those in which the leader alone makes decisions and imposes them upon subordinates (autocratic) to those in which the leader and subordinates jointly arrive at decisions (democratic).

Writers such as Likert and Blake and Mouton assert that the more democratic leadership styles are more effective, and recommend these styles for all situations. Fiedler uses a different approach by recommending that leaders be matched to situations. He concludes that different types of jobs require different types of leadership styles and that leaders should be matched with jobs.

The Vroom and Yetton model specifies that regardless of job, there are some decision-making situations requiring a democratic style of leadership, others that require an authoritarian type of leadership, and yet others that require intermediate leadership styles between authoritarian and democratic. The Vroom and Yetton model defines five leadership styles and gives a paradigm for analyzing decision-making situations to determine which leadership style should be used in any situation.

Given the complexity and variety of decision-making situations that most leaders face, it is not surprising that an effective leader would exhibit different leadership styles in different situations. In retrospect, most previous leadership theories appear simplistic in their approach of prescribing one leadership style for all decision-making situations. Events must be analyzed in their situational context to be meaningful. Previous theories failed to do this, taking instead an absolutist, rather than a relativistic, viewpoint. There are few absolutes in the world, at least in the area of human behavior, and thus, the attempt of Vroom and Yetton to construct a relativistic model of leadership and decision-making appears to be a conceptual advance over the absolutist models of most previous theorists.

While Vroom and Yetton provide supporting empirical evidence to validate their theory, one major problem in their work is readily apparent. They did not address the issue of the effectiveness of their model. Thus, for example, there may be problems with

subordinate acceptance of leaders utilizing this model that they did not even begin to address.

The remainder of this introduction is devoted to a number of issues: 1) an examination of why the study of leadership is important; 2) a presentation of a short history of leadership research; 3) a brief outline of the Vroom and Yetton normative model that was tested in this experiment; 4) a review of the research literature in the areas of role conflict and role ambiguity which led this writer to question subordinate acceptance of a leader following the normative model; 5) presentation of a list of the hypotheses to be tested.

Why the Study of Leadership is Important

The area of leadership is one of the most researched and wirtten about areas in Industrial/Organizational Psychology (Mitchell, 1979). This extensive attention is undoubtedly a manifestation of the importance with which the area is viewed.

Vroom and Yetton (1973) indicate that the quality of leadership is a vital component in the effective functioning of society, as many decisions are made and implemented in group settings. Without good leadership, groups will not function as effectively, and hence society will not function as effectively. Vroom and Yetton state:

> While one can identify many factors influencing organizational effectiveness, some of which are outside the direct control of those in positions of leadership, the critical importance of executive functions and of those persons who carry them out to the survival and effectiveness of the

> organization cannot be denied. Any knowledge that the behavioral sciences could contribute to the identification, development, and enhancement of leadership in organized human endeavor would be of immense societal value (p. 3).

Campbell et al. (1970) express a similar view. The first sentences of their book state, "The key occupational group in an industrial society is management. Effective direction of human efforts--whether in the public or private sector of an economy--is central to the wise and efficient utilization of human and material resources" (p. 1).

Quality of leadership has become an increasingly important concern over the past decades, and will probably become more important in succeeding decades. As society has become more and more urbanized, and humans have come into closer physical contact, the number and size of organizations has grown dramatically. Because of this growth in the number and size of organizations, the role of leadership takes on increasing importance, as more leaders are needed to direct them. Given the increasing interdependence of all segments of our society, the decisions that a leader of an organization makes may have a significant impact on society at large. Therefore, as both Vroom and Yetton and Campbell et al. have stated, a better knowledge of leadership processes can aid society in functioning more smoothly and efficiently.

Brief History of Leadership Research

Fiedler's 1967 contingency theory was the first major theory to discuss leadership from a viewpoint wherein the specific

situation determined what was the most effective leadership style (Mitchell, 1979). Prior to 1967, much of the leadership research had focused on determining whether one type of leadership was more effective than another. One area of research was concerned with the effectiveness of leaders high in "structure" versus those high in "consideration" (see e.g., Argyle et al., 1958; Coch and French, 1948; Johnson, 1973; Morse and Reimer, 1956; and Shaw, 1955). Structure may be defined as a concern for the task and the organizing and structuring of the work to accomplish the task, while consideration is a concern for fostering good interpersonal relationships in the work setting. Factor analytic studies undertaken at both Ohio State University and the University of Michigan in the early 1950s demonstrated that these two factors accounted for a large part of the variance in the description of activities carried out by leaders. While the research cited above added to our knowledge of leadership, it nevertheless produced equivocal results.

Another area of research was concerned with the effectiveness of participatory or democratic leaders versus non-participatory or autocratic leaders (see e.g., Bachman et al., 1966; French et al., 1966; Johnson, 1973; Lawrence and Smith, 1955; Lowin, 1968; Maier and Hoffman, 1962; Marrow, 1964; Scontrino, 1971; Smith and Tannenbaum, 1963; Tosi, 1970; Vroom, 1959; and Vroom and Mann, 1960). While this research shows that subordinates usually prefer leaders who use participative decision-making, the effects of this leadership approach on productivity are less clear cut.

As early as 1953, some prominent researchers were advocating a situational approach to leadership. Fleishman (1953) concluded that "...leadership is to a great extent situational, and what is effective leadership in one situation may be ineffective in another" (p. 1). In 1966, Korman wrote that "...what is needed...is not just recognition of ...'situational determinants' but rather a systematic conceptualization of situational variance as it might relate to leadership behavior" (p. 355).

Fiedler's contingency theory includes situational factors by specifying what type of leaders are effective in what situations. The situational determinants in the theory are leader-subordinate relations, task structure, and position power. Fiedler's research findings (1967) indicated that leaders high in structure are more effective in high or low control situations, while leaders high in consideration are more effective in intermediate control situations. The main problem with the utility of Fiedler's theory is that a leader must be matched with the leadership context in order to be maximally effective. If this matching cannot take place, which is likely to be the case in many or most instances, then the only method by which to increase effectiveness is for the leader to change the leadership context, so that it matches the style that he or she uses. Changing a situation or context in which a leader must operate would seem to be more difficult than altering a leader's behavior, but Fiedler does not feel that this is the case. The contingency theory has generated a good deal of research, and while there is a good deal of evidence supporting its validity, there are

also large numbers of studies with contradictory findings (e.g., Utecht and Heier, 1976; Vecchio, 1977).

Mitchell (1979) reviews a number of studies that investigated leaders who use some type of contingency-based leadership behavior. Mitchell summarizes the studies by noting that they show that successful leadership depends on a number of factors, including the position of the leader in the organization, the type of task, leader and subordinate personality attributes, and subordinate acceptance of the leader. Mitchell notes that most of the reviewed studies analyze leadership styles as a function of two dimensions, structure and consideration.

Similarly, in the field of decision research, McAllister et al. (1979, p. 228) have noted that researchers have recently "...recognized that decision makers do different things in different ways when faced with different decision problems." Previously, researchers in this area had searched for single and simplistic descriptions of decision behavior. Decision research is relevant to leadership, as all leaders are decision makers, at least in relation to how they deal with subordinates. It is relevant to note that decision research, as well as leadership research, is moving away from simplistic theories seeking one solution for all problems, to more complex, yet more realistic, theories in which each situation and context must be analyzed comprehensively in order to determine the most effective behavior.

The Vroom and Yetton Model

As previously noted, recent leadership research has taken a more complex and realistic view of leadership, by examining the context or situation in which the leadership occurs. However, Vroom and Yetton concluded that previous theories of leadership lacked sufficient "explanatory power", and devised a theory of how they felt a leader should act in deciding what degree of participation to allow subordinates in decision-making. Their first step was to review the literature on leadership. This review of the literature, comparing autocratic versus participative leadership styles, led them to conclude that the evidence in support of either model was not overwhelming, but rather that the effectiveness of a particular style of leadership varied from situation to situation. Given this conclusion, Vroom and Yetton decided to focus upon situational characteristics as a determinant of what leadership style a leader should use. Some initial theories were developed, and these became the basis for collection of empirical data to support their theories. The analysis of empirical data led to the reformulation of the initial theories into the ones presented in their book (1973).

While the Vroom and Yetton normative model deals with two kinds of decision-making situations, those involving only one subordinate and those involving several subordinates, the present study dealt only with decision-making situations involving several subordinates. This was so primarily for two reasons: First, the experimental design and procedures were manageable, since the scope

of the investigation was limited; and the research cited by Vroom and Yetton deals only with situations involving several subordinates, so the present research was directly comparable to this work. All further discussion of the Vroom and Yetton model refers only to its application to situations involving several subordinates.

One of the basic assumptions of the Vroom and Yetton model is that the problem-solving processes of organizations vary according to the amount of subordinate participation allowed in problem-solving. Using this assumption, their model describes five different styles of leader behavior. These five styles, presented below, range from the autocratic, in which the leader makes decisions alone without consulting subordinates, to the participative, or group as Vroom and Yetton term it, in which decisions are arrived at by group consensus.

A1. You solve the problem or make the decision yourself, using information available to you at the time.

A11. You obtain the necessary information from your subordinates, then decide the solution to the problem yourself. You may or may not tell your subordinates what the problem is in getting the information from them. The role played by your subordinates in making the decision is clearly one of providing the necessary information to you, rather than generating or evaluating alternative solutions.

C1. You share the problem with the relevant subordinates individually, getting their ideas and suggestions without bringing them together as a group. Then you make the decision, which may or may not reflect your subordinates' influence.

C11. You share the problem with your subordinates, as a group, obtaining their collective ideas and suggestions. Then you make the decision, which may or may not reflect your subordinates' influence.

G11. You share the problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach agreement (consensus) on a solution. Your role is much like that of chairman. You do not try to influence the group to adopt "your" solution, and you are willing to accept and implement any solution which has the support of the entire group.

Vroom and Yetton's identification of leadership styles intermediate to autocratic and participative is not entirely new, as they present a table showing the similarities between their five styles of leadership behavior and the styles of leadership behavior delineated by other writers, for example, Maier (1955), Tannenbaum and Schmidt (1958), Heller (1971), and Likert (1967).

The Vroom and Yetton model for selection of a leadership style in a supervisor-subordinate decision-making situation can be best represented by the decision tree in Appendix A. This figure is a modification of a decision-process flow chart presented by Vroom and Yetton. As this decision tree indicates, when a leader is faced with a decision-making situation involving subordinates and wishes to determine what leadership style to use, the leader must answer either yes or no to a sequence of questions. By following the branches of the decision tree corresponding to the answers given, the leader arrives at a set of leadership behaviors that, according to the Vroom and Yetton model, are permitted in that situation.

Vroom and Yetton present evidence in their book indicating that their model is in reasonable congruence with the actual behavior of leaders and managers, and this finding is corroborated by a

study by Hill (1977). A study carried out in several English companies by Hill (1973) found that 86% of subordinates perceived their leaders as varying in their behavior. Different supervisors are fairly consistent in their leader behavior for certain types of problems, though the types of problems for which a leader displays consistent behavior vary from supervisor to supervisor. The study found that subordinates are more satisfied with more flexible leaders.

The Vroom and Yetton model makes intuitive sense to this experimenter as a pattern of behaviors that a leader should enact in order to arrive at the highest quality decisions. However, Vroom and Yetton present no evidence in their book indicating if leaders who follow their model are more effective than leaders who employ different tactics. The research involved in developing and validating the normative model was done upon executives in leadership training seminars, where leaders from geographically dispersed organizations came to a central location. Therefore, gathering data on the effectiveness of the leaders would have been prohibitive on several counts. However, this experimenter is in agreement with Stogdill (1974), who has written:

> Leadership is defined in terms of interaction and influence relationships between leader and followers. It is meaningless to consider the leader in isolation from the follower group. Research which demonstrates that it is possible to change the attitudes and behavior of leaders tells us nothing at all about the effects of training for leadership. It is necessary to demonstrate that change in leader behavior is related to change in group productivity, cohesiveness, esprit, or satisfaction in order to claim that leadership is improved or worsened by training (p. 199).

Therefore, investigations of whether the Vroom and Yetton model does produce leaders who are more effective is the next logical step in the research process. As Vroom and Yetton themselves state, "It would be useful to know whether decisions that were consistent with the model turned out 'better' than those which were not" (p. 182). That then was the purpose of the present research.

The measure of effectiveness to be used in this study is subordinate satisfaction with the leader, which is part of the general issue of job satisfaction. Locke (1976), in reviewing the area of job satisfaction, states that job satisfaction is of interest to industrial psychologists for a number of reasons. Locke states that happiness is a goal in life, and as job satisfaction is a part of the overall concept of happiness, it is worth studying for this reason alone. If this ethical and moral reason alone is not enough, another reason is that job satisfaction has been found to have an economic impact upon an organization. While job satisfaction is not related to productivity, it is highly related to absenteeism and turnover, as also noted by Porter and Steers (1973). Job satisfaction has been shown to affect physical health and may be related to mental health. These factors do not have as direct an economic impact on an organization as does productivity, but turnover, absenteeism, employee physical health, and employee mental health all can have a negative impact on an organization through such factors as lost productivity due to the training and break-in period of new employees, absenteeism, or poor physical or mental health.

The current study attempted to determine if leadership behavior dictated by the Vroom and Yetton model with a time constraint is less acceptable to subordinates than leadership behaviors dictated by other models. The time constraint aspect of the Vroom and Yetton model means that when the leader goes through the decision tree and arrives at a set of permissible leadership behaviors for that situation, the leader will select the first leadership behavior style listed. By choosing the first leadership style, the leader will come to a decision in the least amount of time, while keeping the quality of the decision and the acceptance of the decision by subordinates at a maximum. By choosing a leadership style that takes a minimum of time for arriving at a decision, the leader will be choosing the most efficient and cost-effective method of decision-making. Vroom and Yetton do indicate that if the organizational objective is to maximize employee development, the leadership style chosen from a set of permissible styles would be the last one listed, as this would maximize employee participation in decision-making, while still keeping the quality of the decision and the acceptance of the decision by subordinates at a maximum. However, this aspect of the model is only mentioned very briefly, and the preponderance of their book deals with a time constraint version of their model.

The leadership behavior dictated by other models of leader behavior involves the use of only one style of leader behavior, and so have less variability than the Vroom and Yetton model. The question of comparing the impact of leadership models with differing

amounts of variability of leadership behavior upon subordinate satisfaction is the main focus of this study.

Ambiguity

It is hypothesized that subordinates wish to be able to predict the future behavior of their leaders, and that the Vroom and Yetton model introduces greater uncertainty in the situation, making prediction less reliable. A number of studies in the area of ambiguity lend support to this position.

Cohen (1959) writes:

> When a stimulus situation is relatively ambiguous, a person can make only certain responses whose effects he cannot predict. Lack of prediction and control make it difficult for him to meet his needs adequately, fostering feelings of worthlessness and threatening the security of the self. A situation characterized by a high degree of structure, in contrast, is one which provides the individual with guidelines so that he has some way of influencing the situation or of behaving toward it so as to achieve adequate need satisfaction. As a result the experience is less threatening....If a person with power arbitrarily changes the roles of the game or keeps shifting the reference points, the dependent person will experience a corresponding degree of threat (p. 37).

Cohen found that subjects in ambiguous situations were less attracted to the interpersonal situation, to the power figure, and to the task.

Kahn et al. (1964) notes that role ambiguity and role conflict are related to low satisfaction, low confidence in the organization, and a high degree of job-related tension. They state that, "Effective goal-directed behavior is based on predictability of future events" (p. 72).

Lyons (1971), in a study of nurses, notes that perceived role clarity is negatively related to turnover, propensity to leave,

job tension, and positively related to work satisfaction. He notes that a number of other studies have shown that role clarity is positively related to satisfaction and reduced tension.

House (1971, p. 325) finds support for his hypothesis that, "The more ambiguous the task the more positive the relationship between leader initiating structure and subordinate satisfaction and performance."

Stogdill (1974), in his survey book on leadership, reports several studies dealing with role ambiguity, which is defined as the role not being clearly defined or an individual not knowing what he is expected to do. These studies indicate that high ambiguity is associated with low job satisfaction and role conflict, which also results in low job satisfaction. A Norwegian management development study is also cited, which found that trainees from the best performing firms, when they were compared to trainess from the poorest firms, were more predictable in behavior and let employees know what to expect. Stogdill has summarized 37 studies on structure, which indicate that subordinates desire group structure and that if the leader does not provide it, the subordinates will. These studies also indicate that group structure is positively related to group satisfaction, productivity, and cohesiveness.

Various other researchers have reported that ambiguity has negative consequences for an organization in a variety of ways, including subordinate satisfaction. House and Rizzo (1972) found that role ambiguity is negatively correlated with perceived organizational effectiveness and satisfaction, and is positively

correlated with propensity to leave. Gross et al. (1958) report that the consequences of role ambiguity are anxiety, turnover, dissatisfaction, and lower performance. Miles (1975) research demonstrated that role ambiguity causes lower job satisfaction.

Schuler et al. (1977) examined the psychometric properties of a role ambiguity scale developed by Rizzo et al. (1970), and concluded that role ambiguity is a viable construct and is associated with negative consequences, such as low satisfaction and absenteeism.

Miles (1976) cites a number of studies that report the relationship between role ambiguity and various outcome measures, including satisfaction. However, Miles is critical of ambiguity studies because they have not investigated specific types of ambiguity, but have focused on the general concept. Miles believes that for the role ambiguity concept to become more useful, research is needed to examine specific types of ambiguity. The present study attempted to investigate one specific area of role ambiguity, by determining if subordinates perceive leaders using the Vroom and Yetton model as more ambiguous than leaders using other models of leadership.

There is some research which indicates that role ambiguity does not necessarily result in negative consequences. Korman (1970) reports that ambiguity need not be dissatisfying if a person has high control of the environment. A study of Johnson and Stinson (1975) found that the relation between task ambiguity and satisfaction is moderated by need for achievement, with those high in need for achievement being more dissatisfied with ambiguity than those

low in need for achievement. Johnson and Stinson find this result quite reasonable, as ambiguity would make achievement of their task, for which they have a high drive, more difficult. The present study examined several variables that could moderate satisfaction in ambiguous situations.

If it is true that subordinates do desire to be able to predict the future behavior of their leader, and that Vroom and Yetton's model makes prediction less reliable, as has been hypothesized, then the body of literature on expectations is pertinent. Stogdill (1974) indicates that a number of studies have shown that when expectations are not met, dissatisfaction and poor performance result. A few of the other studies that support this position are Baumgartel (1956), Berkowitz (1953), Likert (1961), and Scontrino (1971). On this point Likert (1958, p. 327) writes, "Supervision is therefore, always an adaptive process. A leader, to be effective, must always adapt his behavior to fit the expectations, values, and interpersonal skills of those with whom he is interacting."

If it is true that subordinates desire to be able to predict leader behavior, and their leader adopts the Vroom and Yetton model, and makes subordinates aware of the variables used in determining leadership style, this situation may still introduce greater uncertainty, as subordinate and leader perceptions will not always coincide. For example, theoretically, subordinates should be able to predict leader behavior by looking at the same variables that the leader looks at in determining what leadership style to adopt. However, subordinates will not always arrive at the same decision

as the leader. Misperceptions can take place either by leader or subordinate, and in addition to misperception, there is also the problem of lack of data on the part of subordinates in many cases.

Hypotheses

The objective of this study was to examine the effects of leader behavior upon subordinate satisfaction in group decision-making situations. Specifically, the issue explored was whether a leader using a variable style of leadership, such as the Vroom and Yetton normative model or a random model, would have less satisfied subordinates than a leader using a uniform style of leader behavior, such as the authoritarian, consultative, or group-oriented models. As indicated in the Introduction, this experimenter believed that subordinates wish to predict leader behavior, and leadership models such as the Vroom and Yetton normative model, which advocate using different leadership styles by the same leader, decrease the ability of subordinates to predict leader behavior. Therefore, subordinates would be more satisfied with leadership models in which the leader only uses one leadership style.

> Hypothesis 1. Subordinates will be more satisfied with leaders who use a uniform style of leadership (authoritarian, consultative, or group-oriented) than with leaders who use a variable style of leadership (normative or random).

The random model is one in which the leader uses all five of the leadership styles advocated by the Vroom and Yetton model, but uses them randomly rather than according to a set of rules as in the Vroom and Yetton model. The variability of the leadership

style in the random model was constructed to be equivalent to the variability in the Vroom and Yetton model.

Hypothesis 2. Subordinates will prefer a leader who acts in accordance with the Vroom and Yetton model rather than a leader who acts in a random fashion.

While the variability of leadership style is the same in both the normative model and the random model, subordinates should perceive that the leader in the normative model is acting in a consistent fashion, as the leader is exhibiting the same leadership style in similar situations. However, a leader acting under a random model should appear to subordinates to be acting in an illogical and inconsistent fashion, as the leader would exhibit different leadership styles for similar situations. This should result in lower subordinate satisfaction.

Hypothesis 3. Subordinates will be more satisfied with leaders who indicate beforehand how they will act in decision-making situations than with leaders who do not indicate beforehand how they will act.

Hypothesis 4. If subordinates' expectations of style of leadership behavior are not met, subordinates will be less satisfied than if expectations are met.

Hypothesis 5. For subordinates who indicate a desire to predict leader behavior, those who are not able to do so because their leader uses a variable style of leadership behavior (normative or random) will be less satisfied than those subordinates who are able to predict leader behavior because their leader uses a uniform style of leadership.

Hypothesis 6. Subordinates who aspire to leadership roles as part of their career goals will be more satisfied with leadership styles that enable them to participate in decision-making.

There is a large body of literature relating job satisfaction and productivity to participative decision-making; Argyle et al. (1958), Bachman et al. (1966), Coch and French (1948), French et al. (1966), Johnson (1973), Lawrence and Smith (1955), Lowin (1968), Maier and Hoffman (1962), Marrow, (1964), Morse and Reimer (1956), Scontrino (1971), Shaw (1955), Smith and Tannenbaum (1963), Tosi (1970), Vroom (1959), and Vroom and Mann (1960). However, none of these articles indicates if subordinates aspiring to leadership roles have a greater desire for participation than those with less aspiration, as is stated in hypothesis 6. This study attempted to gather data on this question, as well.

While no prediction was made concerning the effect of amount of prior group membership and group leadership experience on satisfaction with leadership style, these variables also were examined to determine if such relationships exist.

METHODOLOGY

Experimental Procedures

This study was conducted using a role-playing technique in which subjects were asked to imagine themselves as one of a number of subordinates of a described leader. Each of the subjects was given a booklet with a standardized set of 13 decision-making situations that were described in terms of the seven variables of the Vroom and Yetton model presented in Appendix A. In each of the 13 decision-making situations subjects were presented the same information that the leader would evaluate in order to decide which leadership style to use for each situation. Immediately following each of the 13 decision-making situations, subjects were given a description of how the leader acted in that situation in terms of which of the five Vroom and Yetton leadership styles the leader used. The description of leader behavior following each situation varied depending upon which condition of the experiment the subject was in. See Appendix B for the five descriptions of leader behavior used in this experiment.

Subjects in this experiment were responding to a part of the decision-making process, namely the leadership style chosen by the leader in each experimental situation, rather than to the actual decisions a leader made in response to the problem being faced. In this manner, the issue of whether the decision reached was an

effective, good, or correct one, or whether it was ineffective, bad, or incorrect was avoided. While the effectiveness or ineffectiveness of a decision no doubt affects the subordinates' satisfaction with the decisions, the main concern in this study was with the subordinates' reactions to the part of the decision-making process that concerns the leadership style chosen by the leader, rather than the final problem-solving decision that is reached.

Other points considered here were that often the effectiveness or ineffectiveness of decisions is not known immediately, and also that external events can and frequently do affect the results of a decision, making a potentially effective decision ineffective and vice-versa. The concern here was with a subordinate's immediate reaction to decision-making processes rather than the subordinate's reaction to the decision itself, whose effectiveness may not be known for some time, and which may be affected by unforseeable external events.

Subjects

Subjects in this study were 280 undergraduate students in introductory psychology courses.

Experimental Design

The experimental design of this study was a 5 x 2 x 2 design, involving the factors of leadership style (normative, authoritarian, consultative, group-oriented, random), subordinate knowledge of leadership style (prior knowledge versus no prior knowledge), and sex of subject (male versus female). The figure below illustrates

the design pictorally and also indicates the number of subjects in each condition of the experiment.

		LEADERSHIP STYLE					Total
		Norma-tive	Author-itarian	Consul-tative	Group	Random	
Prior Knowledge	Male	14	14	14	14	14	70
	Female	14	14	14	14	14	70
No Prior Knowledge	Male	14	14	14	14	14	70
	Female	14	14	14	14	14	70
Total		56	56	56	56	56	280

Leadership Style

As previously noted, the factor of leadership style was comprised of five separate styles, which are listed below:

Normative leadership style.--Subjects in this condition of the experiment received a test booklet in which the leader acted in accordance with the Vroom and Yetton normative model for each decision-making situation in the booklet. The leader described in this condition exhibited each of the five normative model leadership styles (Al, All, Cl, Cll, Gll), depending upon the particular decision-making situation. As the major part of the Vroom and Yetton book presenting this model focuses on the normative model with a time constraint, this model also was followed here. This model means that when more than one leadership style is acceptable for a given situation, the first leadership style given for each situation was the one the leader used.

Authoritarian leadership style.--Subjects in this condition of the experiment received a test booklet in which the leader acted in the authoritarian leadership style (Al) for each of the decision-making situations. This means that the leader always made the decision alone, using information available at the time.

Consultative leadership style.--Subjects in this condition of the experiment received a test booklet in which the leader acted in the consultative leadership style (C1) for each of the decision-making situations. This means that the leader always shared the problem with subordinates individually and then made the decision alone.

Group-oriented leadership style.--Subjects in this condition of the experiment received a test booklet in which the leader acted in a group-oriented leadership style (G11) for each of the decision-making situations. This means that the leader always shared the problem with subordinates as a group, and the entire group then attempted to reach a consensus on a solution to the problem. In this leadership style the leader acted as a moderator or chairperson, rather than as a directive leader as in the authoritarian or consultative leadership styles.

Random leadership style.--Subjects in this condition of the experiment received a test booklet in which the leader used all five of the leadership styles in the Vroom and Yetton normative model, and with the same frequency. However, the leadership style chosen for each particular situation was randomly chosen from those leadership styles that are not appropriate for that particular situation according to the Vroom and Yetton model. In two of the 13 decision-making situations, any of the five leadership styles is appropriate according to the normative model. For these two situations then, the leadership style is appropriate according to the Vroom and Yetton model, but in both situations, the randomly chosen leadership style was not the one most appropriate under the time constraint model that is being used in this study.

Subordinate Knowledge of Leadership Style

The factor of subordinate knowledge of leadership style consisted of two levels. One-half of all subjects in each leadership style condition were given prior knowledge of the leadership style that the leader would use in the 13 decision-making situations. This prior knowledge of leadership style was achieved by including a short written presentation at the beginning of each test booklet, describing what leadership styles the leader would be using in each

of the 13 decision-making situations, and giving several reasons for the benefits of that leadership style. See Appendix C for the five written presentations giving prior knowledge to subjects.

The remaining subjects in each leadership style condition were given no prior knowledge of leadership style. This was achieved by deleting the written presentation (provided in the other test booklets) that described what leadership style the leader would be using.

Sex of Subject

Within each of the cells of the experimental design representing the 10 possible combinations of the factors of leadership style and subordinate knowledge of leadership style, one-half of the subjects were male and one-half female. No prediction was made regarding the effect of sex of subject on satisfaction with leadership style. However, sex of subject is frequently used as a variable in social science experiments, and as sufficient numbers of both male and female subjects were available for random assignment to each experimental condition, the decision was made to include sex as a factor in the experimental design.

Experimental Situations

The test booklet presented to each subject contained a standardized set of 13 decision-making situations. These 13 decision-making situations were chosen from a larger set of 30 decision-making situations obtained from Kepner-Tregoe, Incorporated, which has purchased the rights to material developed by Vroom and Yetton.

The set of 30 decision-making situations provided by Kepner-Tregoe does not intend to reflect the actual incidence in the real world of these types of decision-making situations or the leadership styles that these situations dictate according to the normative model. Rather, these 30 situations represent various possibilities of combinations of situational factors to be evaluated by a leader in decision-making situations.

The 13 decision-making situations used in this study were chosen from the larger set of 30 by dividing the set of 30 into similar situations that resulted in the same leadership style. This division into similar situations resulted in 13 categories with from one to four situations in each. One decision-making situation was then randomly chosen from each of the 13 categories, resulting in the standardized set of 13 decision-making situations used in this study. Appendix D, Sample Experimental Booklet, presents two examples of the 13 decision-making situations for illustrative purposes.

The decision was made to use the 13 decision-making situations rather than the full set of 30, as it was felt that the set of 13 situations gave a good representation of the various types of situations. Also, it was felt that if all 30 decision-making situations had been presented to subjects, this would have resulted in boredom and loss of interest.

The 13 decision-making situations were presented to subjects in seven randomly chosen orders, such that each order was presented to two of the 14 subjects within each of the 20 cells of the

experiment. Different orders were used to negate any possible effects of order of presentation.

The set of 30 decision-making situations obtained from Kepner-Tregoe, from which the 13 decision-making situations in this experiment were chosen, are written in the second person pronoun form. These 30 situations are used to train supervisors, who are asked to place themselves in the role of the supervisor described in the situations. However, for this experiment, involved with subordinate satisfaction with leader behavior, the 13 decision-making situations were reworded and the leader in each situation was given the name of Smith, in order not to identify the described leader as being male or female. No reference to the sex of the leader was made at any point in these decision-making situations.

Dependent Variables

The dependent variables in this experiment were satisfaction with the leader, satisfaction with leader behavior, perception of quality of problem solution, and desire to work for the leader. These variables were measured via five-point Likert type questions, that were asked at the end of the experimental booklet after the subject had read all 13 situations. The four questions were:

> Considering all of the different situations you have read, how satisfied are you, overall, with the way in which Smith decided how decisions would be made?
>
> 1. Very satisfied
> 2. Somewhat satisfied
> 3. Makes no difference
> 4. Somewhat dissatisfied
> 5. Very dissatisfied

Although no solutions to these problems are given, what is your overall feeling of how good or poor the solutions finally arrived at for these problems would be, taking into consideration the way Smith is acting in these situations?

1. Very good
2. Good
3. Average
4. Poor
5. Very poor

How satisfied would you be working for Smith, as described in these situations?

1. Very satisfied
2. Somewhat satisfied
3. Makes no difference
4. Somewhat dissatisfied
5. Very dissatisfied

Based on the behavior of Smith as described in these situations, what are your feelings about working for such a leader?

1. Definitely like to remain working for such a leader
2. Probably like to remain working for such a leader
3. Makes no difference
4. Probably like to quit working for such a leader
5. Definitely like to quite working for such a leader

The question dealing with perception of quality of problem solution has a drawback in that no solutions to the problems were given. What this item attempted to assess in the subjects was their feeling of how good or poor the solution finally arrived at for the problem would be. The assumption made here was that subjects would be able to form impressions of how good the solution arrived at for a problem situation is likely to be, given the manner in which the leader acted in that problem situation. It seemed reasonable to assume that subjects could form these impressions. For instance, if the leader decides to arrive at a problem solution without consulting subordinates, but the subject feels that subordinate input

is necessary for a good solution, then the subject is likely to feel that a poor solution will result. Similarly, if the leader decides to call a group meeting and let the entire group arrive at a problem solution, but the subject feels that the problem is one better solved by the leader alone, then the subject is likely to feel that a poor problem solution will result.

The results of a pilot study indicated that subjects did form such impressions and were able to answer this question meaningfully. After being administered the experimental booklet, subjects were asked a number of questions to determine if the experimental instructions were clear and if they had any problems with the experimental booklet or questions.

One of the questions asked was whether the fact that no actual decision or solution is given caused a problem in responding to the dependent variables. Four of the 40 subjects in the pilot study did indicate that they would have been more comfortable answering the questions if an actual problem solution had been given; however, these four subjects did indicate that they were able to adequately respond to the questions without a problem solution being given. The remaining 36 subjects indicated that they had no problem responding to the dependent variables.

In addition to the four questions asked of subjects at the end of the experimental booklet, two questions were asked after each of the 13 decision-making situations:

> How satisfied are you with Smith's action in deciding how the decision would be made in this situation?

1. Very satisfied
2. Somewhat satisfied
3. Makes no difference
4. Somewhat dissatisfied
5. Very dissatisfied

Although no solution to this problem is given, do you feel that the solution finally arrived at for this problem would be good or poor, considering the way Smith is acting in this situation?

1. Very good
2. Good
3. Average
4. Poor
5. Very poor

As can be seen, these two questions are the same as the first two questions at the end of the experimental booklet, with the exception that they are asked only for that situation, rather than for all situations. In the original conception of this experiment, the two questions after each of the 13 decision-making situations were not asked, as the main concern of this experiment was with the responses to the final four questions. However, after some deliberation, it was decided that subject interest might wane if the 13 decision-making situations were all read before the subject was called upon to make a response. In addition, the two questions after each situation should have served to orient the subject to the kinds of questions that were asked for all the situations, hopefully eliciting more accurate responses to the final four questions.

Covariates

In addition to the experimental manipulation of subjects, subjects were measured on several variables that may have influenced

the answers to the dependent variables. These variables, which were previously mentioned in the Hypotheses section, are:

1) Amount of previous and current participation in group situations;
2) Amount of previous and current group leadership experience;
3) Preferred style of leader behavior (authoritarian, consultative, group-oriented, mixture, or no preference as long as leader is consistent);
4) Desire to be able to predict leader behavior;
5) Desire to become a group leader in chosen career.

Since no scales to measure these variables were found in the literature, and since the experimenter visualized them as relatively simple and straightforward variables, each variable was measured by a single question. See the experimental booklet in Appendix D for the wording of these questions.

RESULTS

Preliminary Findings

Equality of five prior knowledge presentations.--The first step taken in the analysis of the data was to determine if subjects in the prior knowledge half of the experiment were influenced by the short presentations given at the beginning of their booklets. While the intent of the five presentations was merely to alert subjects to the type of leadership style that the leader would be using, and to give several reasons for the leader using that style, it was possible that the five presentations may have differed in their persuasiveness or sincerity. To test this possibility, a sample of 10 subjects was given the five prior knowledge presentations (Vroom and Yetton normative leader, authoritarian leader, consultative leader, group-oriented leader, random leader) using a paired-comparison technique of presentation, in which each presentation was paired with every other presentation. This resulted in 10 paired-comparisons in which the subject chose the presentation thought to be more persuasive or convincing. The results of each subject's paired-comparisons were used to create a rank-ordering of the five presentations for their persuasiveness. The rank orderings were then used to compute Kendall's coefficient of concordance (Hays, 1963) in order to ascertain if there was a consistent manner in which subjects viewed the five presentations. The ω for this sample

was .1584, χ^2 = 6.3371, df = 4, which was not significant, p = .1753, indicating that there was no consistent pattern in the manner in which subjects view the persuasiveness of the presentations. Therefore, the possibility that the persuasiveness of the five presentations may have affected the scores on the dependent variable can be ruled out.

Relationships among the four dependent variables.--The original intent of the experiment was to use questions 27, 28, 29, and 30 of the experimental booklet as separate dependent variables in the analysis of the data (see Appendix D). These four questions asked about:

1) Satisfaction with the way the leader made decisions;
2) Perception of quality of solutions to problems;
3) Satisfaction with working for the leader;
4) Desire to remain or quit working for the leader.

It was thought that each of these four questions was measuring a different type of satisfaction and should therefore each be considered as a separate dependent variable. However, inspection of a correlation matrix of these four variables, presented in Table 1, indicates a moderate degree of overlap among the variables.

To determine the reliability of a scale consisting of all four items, a standardized coefficient alpha was computed and was found to be .85, thus indicating high reliability of the four-item scale.

TABLE 1.--Correlation Matrix of 4 Dependent Variables

	Dependent Variable 1	Dependent Variable 2	Dependent Variable 3
Dependent Variable 2	.58		
Dependent Variable 3	.63	.54	
Dependent Variable 4	.58	.51	.73

Because of these results, the main analysis was carried out by computing a new variable called SATIS, which is the sum of the four original dependent variables. As a subsidiary analysis, multivariate analysis of variance was carried out using the four separate dependent variables as a univariate, and the results are virtually identical to the results of the main analysis performed with analysis of variance on SATIS. Both these analyses are discussed in the following sections.

5 x 2 x 2 Analysis of Variance

As mentioned previously, the main dependent variable in this study was a composite variable, called SATIS, that was the sum of the four dependent variables. As the correlations among the five covariates and the four questions comprising SATIS were all extremely low, between .13 and -.10, the method of analysis chosen was analysis of variance rather than analysis of covariance (see Table 2). The analysis of variance utilized a 5 x 2 x 2 design with 14 subjects in each condition. The results of the analysis, summarized in Table 3, revealed that the three-way interaction and the three two-way interactions did not reach significance, $p > .05$.

Of the three main effects, only two reached significance. SEX, $F_{1,260} = 8.865$, $p = .003$, and LDRSTYLE, $F_{4,260} = 5.277$, $p = .001$, reached significance, while KNWLDG was not significant, $F_{1,260} = .000$, $p = .99$. Table 4 presents the means of each level of the three main effects of the model. (Note that the higher the mean SATIS score, the less the subjects were satisfied with the leader.)

TABLE 2.--Correlation Matrix of 4 Dependent Variables with 5 Covariates.

	Dependent Variable 1	Dependent Variable 2	Dependent Variable 3	Dependent Variable 4
Covariate 1[1]	.00	-.02	-.08	.02
Covariate 2[2]	-.02	-.07	-.03	-.02
Covariate 3[3]	.13	-.08	-.10	-.06
Covariate 4[4]	-.04	.01	-.01	-.04
Covariate 5[5]	-.02	.01	-.10	-.04

[1]Amount of previous and current participation in group situations.

[2]Amount of previous and current group leadership experience.

[3]Preferred style of leader behavior (authoritarian, consultative, group-oriented, mixture, or no preference as long as leader is consistent.)

[4]Desire to be able to predict leader behavior.

[5]Desire to become a group leader in chosen career.

TABLE 3.--Analysis of Variance Table.

Source	SS	df	MS	F	p
SEX	62.229	1	62.229	8.865	.003
LDRSTYLE	148.164	4	37.041	5.277	.001
KNWLDG	.000	1	.000	.000	.999
SEX x LDRSTYLE	23.164	4	5.791	.825	.510
SEX x KNWLDG	2.800	1	2.800	.399	.528
LDRSTYLE x KNWLDG	65.107	4	16.277	2.319	.057
SEX x LDRSTYLE x KNWLDG	7.307	4	1.827	.260	.903
ERROR	1,825.000	260	7.019		

TABLE 4.--Table of Means of SATIS.

Source	Level	$\bar{x}$
Grand Mean	---	8.97
Sex	Male	9.44
	Female	8.50
Leader Style	Normative	8.46
	Authoritarian	10.30
	Consultative	9.16
	Group-oriented	8.28
	Random	8.64
Knowledge	Prior	8.97
	No Prior	8.97

Hypotheses 1 and 2 were tested by using planned comparisons, but as the two planned comparisons are not independent, the normally used .05 level of significance was divided by 2, thereby requiring p in each comparison to exceed .025 to reach significance.

Hypothesis 1, that subordinates would be more satisfied with leaders who use a uniform style of leadership (authoritarian, consultative, or group-oriented) than with leaders who use a variable style of leadership (normative or random), was not supported, as $t_{260} = -1.875$, which is not significant at the .025 level for a directional test.

Hypothesis 2, that subordinates would prefer a leader who acts in accordance with the Vroom and Yetton model rather than a leader who acts in a random fashion, also was not supported as $t_{260} = .36$, which is not significant at the .025 level for a directional test.

As the analysis of variance indicated that the effect of LDRSTYLE was significant (see Table 3), a post hoc analysis using the Newman-Keuls test was done to determine if there were any significant differences among the five leadership styles. This analysis found that the only significant difference was that subordinates in the authoritarian leadership condition were less satisfied than subordinates in any of the other four conditions (consultative, group-oriented, normative, random).

Hypothesis 3 states that subordinates would be more satisfied with leaders who indicate beforehand how they will act in decision-making situations than with leaders who do not indicate beforehand

how they will act. The main effect of KNWLDG, which tested this hypothesis, was not significant. Therefore, in this experiment, prior knowledge of the manner in which the leader would act has no effect on subordinate satisfaction. Even though there is no main effect of KNWLDG upon SATIS, the two-way interaction of KNWLDG and LDRSTYLE did approach significance, $p = .057$. Therefore, a simple main effects test (Kirk, 1968) was computed to determine if there were any significant differences due to KNWLDG within any condition of LDRSTYLE. Following Kirk's recommendation, the overall α level, .05, was divided by the number of simple main effects tests being calculated, which in this case was five, as there were five conditions of LDRSTYLE. The α level of each simple main effects test was then $.05/5 = .01$. To reach significance at the .01 level with 1 and 260 degrees of freedom, an F of 6.63 is needed, but this F was not reached in any of the five tests. Therefore, there did not appear to be any reliable effect of KNWLDG within any of the five conditions of LDRSTYLE.

The effect of sex of subject upon subordinate satisfaction with leadership style was tested by examining the significance of the main effect of the variable SEX. This comparison was significant (see Table 3). In this experiment then, sex of the subordinate has an effect upon subordinate satisfaction. Female subordinates were more satisfied with the leader behavior than were male subordinates. The mean satisfaction score for all subjects was 8.97 on a scale from 5 to 20, with 5 being the greatest satisfaction and 20 the least satisfaction. For males the mean score was 9.44, while

for females the mean score was 8.50 (see Table 4). Though significant, sex of subordinate was of little importance in explaining subordinate satisfaction, as eta for SEX equaled .17. As eta^2 is the proportion of variation in the dependent variable explained by the independent variable, SEX explained only 3% of the variation in subordinate satisfaction with the leader.

5 x 2 x 2 Multivariate Analysis of Variance

As previously noted, examination of the correlation matrix of the four dependent variable items and examination of coefficient alpha for a new variable named SATIS, which is the sum of the four dependent variable items, led to the decision to use SATIS as the dependent variable in this experiment. However, a multivariate analysis of variance was performed on the data, using each of the four dependent variable items as a separate dependent variable to determine if any additional information might be gained from this alternative approach. This analysis was carried out using the Finn program available through the College of Education at Michigan State University.

A principal components analysis of the correlation matrix of the four dependent variables provides further evidence that the variable SATIS was a reasonable dependent variable to examine in this study. The first vector of the principal components analysis is weighted nearly identically on each of the four dependent variable items (see Table 5), indicating that the items can be summed

TABLE 5.--Principal Components of Correlation Matrix.

	Vectors			
	1	2	3	4
Dependent Variable 1	-.82	-.14	.54	.08
Dependent Variable 2	-.76	-.58	-.29	-.01
Dependent Variable 3	-.87	.29	-.06	-.40
Dependent Variable 4	-.84	.36	-.21	.34

without weighting, and this vector accounts for 68% of the variation (see Table 6).

The results of the Finn MANOVA analysis indicated that there was no three-way interaction nor were there any significant two-way interactions, as none of the multivariate F's for these effects reached statistical significance.

For the three main effects, SEX has a significant effect for each of the dependent variables except for dependent variable 2; LDRSTYLE has a significant effect on all four dependent variables; and KNWLDG has no significant effect on any of the four dependent variables.

These results are nearly identical with the results of the 5 x 2 x 2 analysis of variance discussed in the previous section, so no further attention is given them.

Testing Hypothesis 4

As part of the experimental booklet, subjects were asked to choose which of five types of leaders they would like to work under. (See question 33 in Appendix D for the actual wording of the question.) Four of these choices corresponded to the normative, authoritarian, consultative, and group-oriented conditions of the variable LDRSTYLE. The fifth choice was that the subject would not care if the leader were authoritarian, consultative, or group-oriented, as long as only one of these was used consistently. No choice was given for the random condition of LDRSTYLE, as it did not seem reasonable to believe that subjects would select the choice of a

TABLE 6.--Eigenvalues and Variation Accounted for by Vectors.

Vector	Eigenvalue	Percent of Variation
1	2.72	68.11%
2	.56	14.10%
3	.43	10.66%
4	.29	7.13%

leader who is inconsistent for the sake of being inconsistent (the essence of the random condition). The choices of the subjects on this question are presented in Table 7.

The distribution of subject choices for this question also served to refute Hypothesis 1 (subordinates will be more satisfied with leaders who use a uniform style of leadership than with leaders who use a variable style of leadership), as 47.5% of the subjects indicated they would choose to work for a normative style leader, whereas the other 52.5% chose some form of uniform style of leadership. As might be expected, most subjects choosing the uniform style of leader chose the more democratic or participatory styles of leader behavior, 25% choosing to work for a group-oriented leader and 25% choosing to work for a consultative leader.

In order to test Hypothesis 4 (if subordinates' expectations of style of leadership behavior are not met, subordinates will be less satisfied than if expectations are met), each subject's choice on this question was compared with the condition of LDRSTYLE that the subject was in. As no choice was allowed for the random condition of LDRSTYLE, these 56 subjects were not part of the analysis. The 224 subjects in this analysis resulted in 148 subjects whose expectations of leadership style were met and 76 whose expectations were not met. The unequal numbers occurred as this was a measured variable rather than an assigned variable.

The analysis of variance of SATIS by subordinate expectation (EXPECT) shows that subordinate expectation does have a statistically significant effect upon subordinate satisfaction, $F_{1,222} = 9.36$,

TABLE 7.--Frequency of Choices for Leader Style Preferred.

Leader Style	Frequency	Percent
Authoritarian	6	2.1%
Consultative	70	25.0%
Group-oriented	70	25.0%
Normative	133	47.5%
Consistent	1	.4%

$p = .002$. Those subjects whose expectations were met had a mean SATIS score of 8.64, while those subjects whose expectations were not met had a mean SATIS score of 9.85, thus indicating that those subjects whose expectations were not met were less satisfied than those whose expectations were met (the lower the score on satisfaction, the greater the subordinate satisfaction). Thus, Hypothesis 4 was confirmed, but eta^2 for EXPECT was .04.

Testing Hypothesis 5

To test Hypothesis 5 (if subordinates desire to be able to predict leader behavior, but are not able to do so, then subordinates will not be as satisfied if they had been able to predict leader behavior), subjects were asked if they would be more satisfied if they could predict how the leader will make decisions (see question 34 in Appendix D for the exact wording.)

Of the 280 subjects, 228, or 81%, indicated that they would be more satisfied if they could predict leader behavior. For these 228 subjects, an analysis of variance was carried out to determine if satisfaction is greater for those subjects who were in the experimental conditions that enabled them to predict leader behavior (which were the authoritarian, consultative, and group-oriented conditions). This resulted in 138 subjects being able to predict leader behavior, while 90 subjects were in conditions where they were not able to predict leader behavior. However, the analysis showed that there is no statistically significant difference between

the two groups, $F_{1,226} = 1.684$, $p = .631$. Hypothesis 5 therefore was not supported.

Testing Hypothesis 6

Hypothesis 6 (subordinates who aspire to leadership roles as part of their career goals will be more satisfied with leadership styles that enable them to participate in decision-making) was tested by asking subjects if they hoped to be a leader of decision-making groups in their career (see question 35 in Appendix D for the exact wording.)

As might be expected, the great majority of subjects, 86%, or 241, of 280, replied that they wished to be leaders. For the 241 subjects, an analysis of variance was computed to examine whether satisfaction was greater for subjects who were in experimental conditions that allowed them to participate in decision-making (i.e., the normative, group-oriented, and random conditions). This resulted in 141 subjects who were in these conditions and who were thus able to participate in decision-making, while the other 100 subjects were in the authoritarian or consultative conditions, where they were not able to participate in decision-making. The analysis of variance indicates that aspirations to leadership had a statistically significant effect on subordinate satisfaction, $F_{1,239} = 12.610$, $p = .001$. Those subjects who aspired to leadership and who were in conditions that enabled them to participate in decision-making were more satisfied ($\bar{X}_{SATIS} = 8.49$) than subjects who were in conditions where they were not able to participate in

decision-making ($\bar{X}_{SATIS}$ = 9.79). Hypothesis 6 thus was supported with eta^2 = .05.

An analysis of the 39 subjects that did not aspire to future career leadership roles found that 13 (9.3%) were males and 26 (18.6%) were females. A χ^2 test of this difference was significant, χ^2_1 = 4.29, df = 1, p < .05.

Effect of Experience on Satisfaction

As part of the experimental booklet, subjects were asked to indicate the amount of experience they had had as members of groups and as leaders of groups that met together and acted together (see questions 31 and 32 in Appendix D.) The distributions of subject responses to these two questions are given in Table 8.

While no hypothesis was made concerning a relationship between group membership or leadership experience and subordinate satisfaction, a regression analysis was performed to determine if there was a relationship. Neither group membership nor group leadership experience was shown to be useful in determining subordinate satisfaction, as neither F-test was significant. For group membership, $F_{1,278}$ = .22, p = .642, while for group leadership, $F_{1,278}$ = .45, p = .505, thereby indicating no relationship between group membership experience or group leadership experience and subordinate satisfaction.

TABLE 8.--Frequency of Responses to Group Membership and Group Leadership Questions.

Number	Group Membership Frequency	Group Leadership Frequency
0	28	81
1	20	71
2	26	50
3	44	27
4	42	23
5	25	13
6	28	8
7	17	3
8	12	2
9+	38	2

DISCUSSION

Table 9 summarizes the results of the six hypotheses tested in this experiment. It indicates that two were confirmed. However, the results of these hypothesis tests lead to several interesting conclusions.

While Hypothesis 1, that subordinates will prefer a uniform style of leadership to a variable style, and Hypothesis 2, that subordinates will prefer a normative style of leadership to a random style, were not confirmed, the results of the analysis revealed that leadership style does have a significant effect on subordinate satisfaction. The significant difference was found to occur between the authoritarian leadership style and the other four leadership styles, consultative, group-oriented, normative, and random; the subjects in the authoritarian leadership style were less satisfied than subjects in the other four groups.

One conclusion that might be drawn from this finding is that subordinate satisfaction is dependent upon their being able to provide input to superiors. With the exception of the authoritarian leadership style, all the leadership styles provide some degree of subordinate input to superiors. The normative and random leadership styles provide intermittent opportunities for subordinate input, the group-oriented leadership style provides for continuous

TABLE 9.--Results of Hypothesis Tests.

Hypothesis	Result
1. Subordinates will be more satisfied with leaders who use a uniform style of leadership (authoritarian, consultative, or group-oriented) than with leaders who use a variable style of leadership (normative or random).	Not confirmed
2. Subordinates will prefer a leader who acts in accordance with the Vroom and Yetton model rather than a leader who acts in a random fashion.	Not confirmed
3. Subordinates will be more satisifed with leaders who indicate beforehand how they will act in decision-making situations than with leaders who do not indicate beforehand how they will act.	Not confirmed
4. If subordinates' expectations of style of leadership are not met, subordinates will be less satisfied than if expectations are met.	Confirmed
5. For subordinates who indicate a desire to predict leader behavior, those who are not able to do so because their leader uses a variable style of leadership behavior (normative or random) will be less satisfied than those subordinates who are able to predict leader behavior because their leader uses a uniform style of leadership.	Not confirmed
6. Subordinates who aspire to leadership roles as part of their career goals will be more satisfied with leadership styles that enable them to participate in decision-making.	Confirmed

subordinate input, and the consultative leadership style provides for limited subordinate input. The limitation inherent in this last style is that though subordinates are continually being asked for information, they are not included in the actual decision-making, as they are in the group-oriented, normative, and random leadership styles. If we look to learning theory, it is not surprising that the normative and random leadership styles, with intermittent opportunities for subordinate input, are as satisfied as the group-oriented leadership styles, since variable-interval reinforcement schedules are in many cases as effective as a continual reinforcement schedule.

An experiment to test the hypothesis that subordinate satisfaction is dependent upon the subordinate being allowed to provide input to the leader would be to set up several groups with different styles of leadership for the same decision-making situations. As control groups, one group would have a leader who is always authoritarian, one group would have a leader who is always consultative, and a third control group would have a leader who is always group-oriented. There would be two types of experimental groups. The first type would be groups in which the leader was authoritarian for some situations and group-oriented for other situations, the choice being made randomly; the second type would be groups in which the leader was authoritarian for some situations and consultative for other situations, the choice again being made randomly. For example, there might be four experimental groups with the leader in each group acting as follows; 1) the leader is authoritarian 75% of the

time and consultative 25% of the time; 2) the leader is authoritarian 50% of the time and consultative 50% of the time; 3) the leader is authoritarian 75% of the time and group-oriented 25% of the time; 4) the leader is authoritarian 50% of the time and group-oriented 50% of the time. Other percentage splits of leader behavior could be used, but the purpose would be to have several levels of each of the two combinations. By having the two combinations of leader behavior, authoritarian/consultative and authoritarian/group-oriented, it can be determined if subordinate satisfaction is due to subordinate participation in decision-making or merely to subordinate input to the leader. By having several levels of each combination, it can be determined if there is a certain percent of the time that a subordinate must be able to input to the leader or participate in decision-making in order to be satisfied, or if with increasing percents of input or participation that subordinates become more satisfied.

Another possible explanation of this finding that subordinates of authoritarian leaders are less satisifed than subordinates of other types of leaders is that it supports the findings of previous research, that subordinates are more satisfied when they are allowed to participate in decision-making. However, if this were the case, the group experiencing the consultative leadership style, which did not actually participate in decision-making, but rather merely provided input to the leader, should have been less satisfied than the group-oriented, normative, or random leadership groups. This was not the case though, as the consultative leadership group

did not significantly differ in subordinate satisfaction from these three groups. It is possible that providing input to the leader does serve the same purpose as allowing subordinates to participate in decision-making, but this position does not seem tenable. The aforementioned experiment would also test this hypothesis. At the moment, though, these results are not fully consistent with participative decision-making theory.

The lack of support for Hypothesis 3, that subordinates will be more satisfied with leaders who indicate beforehand how they will act, is at variance with the fact that 81% of subjects said they would be more satisfied with a leader whose behavior they were able to predict.

One possible explanation for the lack of support for Hypothesis 3 is that subjects in the no prior knowledge condition may have quickly become aware of the manner in which the leader was acting. It is possible that after the first few pages in the experimental booklet, subjects in the authoritarian, consultative, and group-oriented conditions realized that the leader would be exclusively using that style, and that likewise the subjects in the normative and random conditions realized that the leader would be acting in a variable style of leadership. If this is the case, then subjects in the no prior knowledge condition would be able to predict leader behavior, as were the subjects in the prior knowledge condition.

While Hypothesis 4, that subjects whose expectations of leadership style are met will be more satisfied than those subjects whose expectations are not met, was confirmed, the frequency of

choices for leader style preferred was surprising. Though not stated as a hypothesis, it was expected that the great majority of subjects would prefer to work for a group-oriented leader, and that few would prefer to work for normative leaders. This expectation is basically an extension of Hypothesis 1. However, 47.5% of subjects preferred to work for a normative type of leader and only 25% preferred working for a group-oriented leader. This preference may indicate a realization on the part of many subjects that some decisions are too trivial for group decision-making, that subordinates may not have meaningful input on some decisions, and that in some decisions subordinates will be in conflict and a decision must be made by the leader. In other words, they may be aware of some or all of the factors that Vroom and Yetton considered in their normative model to indicate that leadership style should vary.

Another possible explanation for the large percent of subjects expressing a preference for a normative style leader may be that they have had experience in working for a normative style leader and have been satisfied in doing so. Vroom and Yetton (1973) and Hill (1977) found that many real-life leaders do vary their style of leadership, though not necessarily in accordance with the normative model.

The frequency of subject choices for leader style preferred also supports the findings reported for Hypothesis 2, that the only difference among satisfaction with leadership styles is that the authoritarian style was less preferred than the other four. Only 2.1% of subjects indicated a preference for an authoritarian leader,

while 25% each chose consultative and group-oriented, and 47.5% chose normative. With percents like these, it is not surprising that the only difference in satisfaction with leadership styles is between authoritarian and the other four.

The lack of support for Hypothesis 5, that satisfaction will be less for subordinates desiring to be able to predict leader behavior, but who are not able to do so, may indicate that prediction of leader behavior for normative and random conditions does not mean that the subordinate has to know what the leader will do in every situation, but that prediction merely means knowing that the leader will use different leadership styles. As previously discussed in explaining the findings of Hypothesis 3, subjects may quickly discover whether a leader is using one style consistently or is using a variety of leader styles, and this discovery will then enable subordinates to predict leader behavior. If this explanation is true, this would mean that categorizing subjects in the normative and random conditions as not being able to predict leader behavior was incorrect.

The confirmation of Hypothesis 6, that subordinates aspiring to leadership roles will be more satisfied with participatory leadership styles, can be explained by positing that participation in decision-making is seen as preparation for leadership. Many of the duties of a leader are to make decisions and therefore participation in decision-making can be viewed as experience in leadership duties. Leaders also have more control over their work, and by participating in decision-making, subordinates can also gain a measure of control

over their work. In this manner, subordinates may be emulating the characteristics of leaders.

While this study supports the effectiveness of the Vroom and Yetton normative model in terms of subordinate satisfaction, future research should utilize other measures of effectiveness to compare the normative model to more traditional models. These other measures could be the effectiveness or quality of the decisions reached by different types of leaders, or the commitment and adherence by subordinates to the decisions actually made. These variables will not be as easily measurable as subordinate satisfaction, but factors of this type must be examined in order to test conclusively the effectiveness of the Vroom and Yetton model.

Two aspects of this study are subject to some criticism and could have been improved if resources of the experimenter had permitted. Major shortcomings involved the use of role-playing technique and the use of college students as subjects. While these are accepted practices in many research studies, and particularly in graduate research, more confidence could be given to the results if actual decision-making situations with different leadership styles had been devised, and if the subjects had been chosen from people with appreciable work experience in decision-making groups. Any replications of this study should attempt to utilize these suggestions, though the present experimenter was not able to do so.

The overall intent of this study was to examine the effect of different styles of leadership upon subordinate satisfaction.

It was believed that subjects would be less satisfied with normative leaders and would prefer to work for leaders with a consistent leadership style. As previously noted, the results do not support this belief. Rather, subordinate satisfaction with the normative leadership style was comparable with subordinate satisfaction in consistent leadership styles, though authoritarian leadership style resulted in significantly lower subordinate satisfaction. Also, nearly half of the subjects indicated a preference to work for a normative leader who varies leadership style according to the situation.

This study then lends further support to the Vroom and Yetton normative model of leadership. Subordinates are as satisfied with the normative model as with other leadership models, and nearly half of subordinates prefer to work for normative leaders. As Vroom and Yetton (1973) and Hill (1977) have found, many leaders of decision-making groups do vary their style of leadership, though not necessarily in accordance with the normative model. From the standpoint of subordinate satisfaction, the normative model is no less satisfactory a model than a number of other models. However, further research needs to be conducted to determine if the normative model, compared to other models, results in superior decisions or outcomes.

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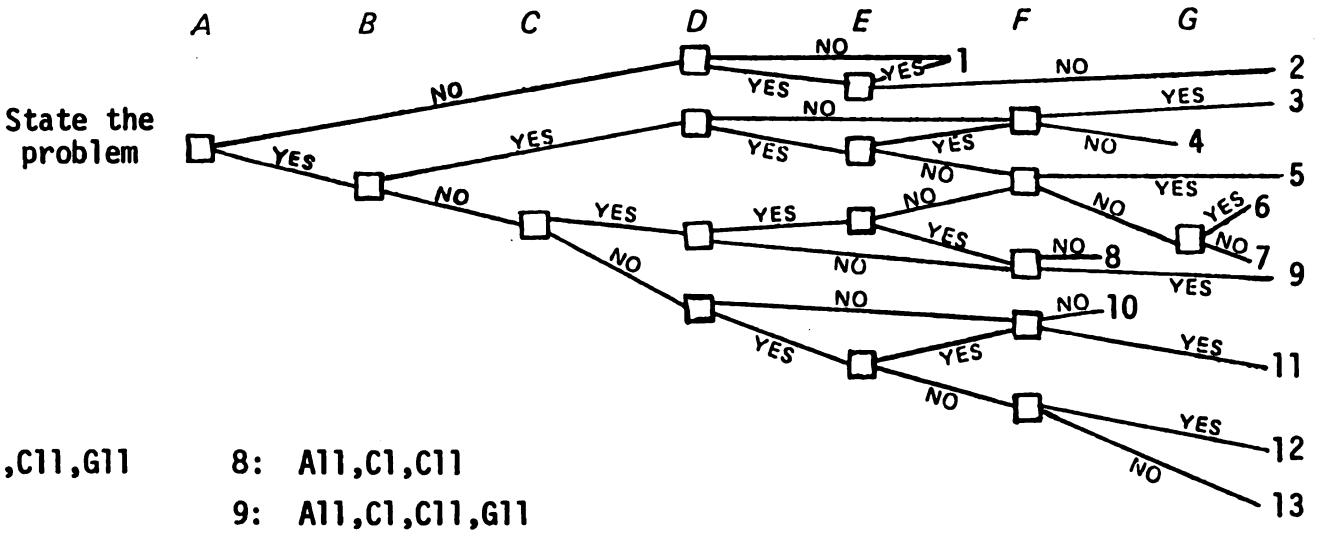
APPENDICES

APPENDIX A

Normative Model Decision Tree

A. Is there a quality requirement such that one solution is likely to be more rational than another?
B. Do I have sufficient info to make a high quality decision?
C. Is the problem structured?
D. Is acceptance of decision by subordinates critical to effective implementation?
E. If I were to make the decision by myself, is it reasonably certain that it would be accepted by my subordinates?
F. Do subordinates share the organizational goals to be attained in solving this problem?
G. Is conflict among subordinates likely in preferred solutions?



1: A1,A11,C1,C11,G11
2: G11
3: A1,A11,C1,C11,G11
4: A1,A11,C1,C11
5: G11
6: C11
7: C1,C11
8: A11,C1,C11
9: A11,C1,C11,G11
10: C11
11: C11,G11
12: G11
13: C11

APPENDIX B

Five Descriptions of Leader Behavior

A1 Leader Behavior

IN THIS SITUATION, SMITH MAKES THE DECISION OF WHAT ACTION TO TAKE, USING THE ABOVE INFORMATION, WITHOUT TALKING TO SUBORDINATES.

A11 Leader Behavior

IN THIS SITUATION, SMITH GATHERS INFORMATION FROM SUBORDINATES, THEN SMITH MAKES THE DECISION OF WHAT ACTION TO TAKE.

C1 Leader Behavior

IN THIS SITUATION, SMITH SHARES THE PROBLEM WITH SUBORDINATES INDIVIDUALLY, GATHERING INFORMATION AND SUGGESTIONS, AND THEN SMITH MAKES THE DECISION OF WHAT ACTION TO TAKE.

C11 Leader Behavior

IN THIS SITUATION, SMITH SHARES THE PROBLEM WITH SUBORDINATES AS A GROUP, GATHERING INFORMATION AND SUGGESTIONS, AND THEN SMITH MAKES THE DECISION OF WHAT ACTION TO TAKE.

G11 Leader Behavior

IN THIS SITUATION, SMITH SHARES THE PROBLEM WITH SUBORDINATES AS A GROUP, AND THE GROUP, INCLUDING SMITH, EVALUATES INFORMATION AND ALTERNATIVES IN ORDER TO ARRIVE AT A GROUP DECISION OF WHAT ACTION TO TAKE.

APPENDIX C

Prior Knowledge of Leadership Style

In the situation descriptions you are to read, the leader of the group will use several different styles of leader behavior to make decisions. While the theory of leadership on which this leader behavior is based is too complex to explain in detail in this experiment, the basic ideas will be briefly outlined.

This theory states that for each group decision-making situation a leader is faced with, there are a number of questions to be answered about the situation. These questions are:

1. Is the quality of the decision important, such that some solutions are better than others?
2. Does the leader have sufficient information to make the decision?
3. Is the problem structured, in that it is similar to problems often encountered and for which there are procedures for handling these types of problems?
4. Is commitment of subordinates necessary for effective implementation?
5. If the leader makes the decision alone, will subordinates accept and implement the decision?
6. Do subordinates share the same organizational goals as the leader?
7. Is conflict about solutions likely among subordinates?

After evaluating the situation in terms of these 7 questions, the leader is able to decide which of 5 leadership behaviors to use in that particular situation. The 5 leadership behaviors that the leader may use are:

1. The leader makes the decision alone, without talking to subordinates.
2. The leader obtains information from subordinates, then makes the decision.
3. The leader shares the problem with subordinates individually and then makes the decision.
4. The leader shares the problem with subordinates as a group and then makes the decision.
5. The leader shares the problem with subordinates as a group, and the group then reaches consensus on a solution.

The situation descriptions that follow will have information to answer the questions a leader should ask, and the behavior of the leader in a situation will be one of the 5 behaviors listed above.

If this leadership model is followed, the best decision should be reached in the shortest time.

In the situation descriptions you are to read, the leader of the group will be sharing the problem with subordinates as a group, and the entire group, including the leader, will discuss the problem and arrive at a group decision of what action to take.

This style of leader behavior in problem-solving and decision-making situations is gaining increasing acceptance in all types of organizations. This type of leadership usually results in higher quality decisions than other types of leadership, as available information pertaining to the problem is gathered from subordinates during the group session and is used in deciding upon the best decision. Also, by involving subordinates in the decision-making process, subordinates feel a greater sense of commitment to the decision made and will carry out the decision more effectively. Finally, by involving subordinates in the decision-making process, better communication among subordinates will be fostered through use of the group meetings in which decisions are made. This increased communication among subordinates will usually carry over from decision-making meetings to the everyday contacts among subordinates. This increased communication means increased sharing of information which results in more satisfied and productive subordinates.

In the situation descriptions you are to read, the leader of the group will be sharing the problem with subordinates individually, and then making the decision from the information gathered from subordinates. This style of leadership behavior in problem-solving and decision-making situations is a middle ground between the more traditional style of the leader making all decisions and the more recent style of the leader and subordinates making decisions together as a group.

This style of leader behavior has the advantage over group decision-making in that lengthy group meetings are eliminated and decisions can be made more quickly, thereby increasing efficiency by saving time and money. It also eliminates the conflict among subordinates that may arise when group meetings are held to discuss the solution of problems.

This style of leader behavior has the advantage over leaders who make decisions themselves, without consulting subordinates, in that higher quality decisions will be made, as all available information on the problem is gathered from subordinates. Also, subordinates will feel more committed to carrying out the decisions that have been made, as they will have had input into the solving of the problem.

In the situation descriptions you are to read, the leader of the group will use several different styles of leader behavior to make decisions. There are 5 styles of leadership that the leader may use. They are:

1. The leader makes the decision alone, without talking to subordinates.
2. The leader obtains information from subordinates, then makes the decision.
3. The leader shares the problem with subordinates individually and then makes the decision.
4. The leader shares the problem with subordinates as a group and then makes the decision.
5. The leader shares the problem with subordinates as a group, and the group then reaches consensus on a solution.

This leadership theory contends that by using this variety of leadership styles, the leader will prevent boredom and lack of attention in his subordinates. If only one leadership style is used constantly by the leader, subordinates will become complacent, and their efficiency and output will not be as high as it might be. However, by use of the different styles of leadership, subordinates will function at a higher efficiency and will find their work more stimulating.

There is more to this theory than can be covered in this experiment, but the basic premise is that the leader should not always use one style of leadership, but should rather use different styles at different times to prevent boredom and increase efficiency.

In the situation descriptions you are to read, the leader of the group will be making decisions concerning the solution of problem alone, without consulting subordinates. This is the style of leadership that most people have had experience with and is the type of leadership that they usually expect. It is also the most saving of time, and therefore money, as there is no need to call together committees of people, who are likely to spend a good deal of time meeting and discussing a problem before a decision is reached.

Another benefit of this type of leadership is that there is less conflict among subordinates. With more group-oriented styles of leadership, personalities and viewpoints of competing subordinates may clash, resulting in increased time to reach decisions, and frequently leading to lack of co-operation among subordinates in carrying out the decisions. With the leader making decisions, this problem of conflict among subordinates is greatly reduced.

APPENDIX D

Sample Experimental Booklet

In this experiment, you are to role-play or imagine yourself as one of several subordinates of a leader who is confronted with 13 different group problem-solving and decision-making situations. Even though the 13 situations you will read are quite diverse, coming from a variety of business, academic, and research settings, try to build an image of one leader for all the different situations.

After reading each situation description and the way the leader dealt with the situation, you are to answer 2 questions about your reaction to the leader's behavior in that situation. After you have gone through all 13 of the situations, there are several questions regarding your overall reaction to the way the leader dealt with all the situations. Your responses to these questions should reflect the role you are playing of a subordinate to the leader. REMEMBER TO TRY TO BUILD AN IMAGE OF THE SAME LEADER IN THE 13 DIFFERENT SITUATIONS.

Before you continue with the rest of the booklet, please fill in the blanks for your student number and sex on the accompanying answer sheet. Mark the answers to all the questions in this booklet on the accompanying answer sheet.

Smith has been given authorization to take two subordinates to a planning conference on Wednesday of next week. This conference will take place at the Hilton Hotel downtown and has a deserved reputation for providing excellent food and other refreshments.

Smith's organization will pay the $25 fee, and the conference is considered one of the best of a number of fringe benefits which are shared among six subordinates. Selection means little in terms of opportunities to make useful contacts, and has in the past not been used as a mechanism for rewarding good performance. It is obvious that all six subordinates would like to go.

IN THIS SITUATION, SMITH GATHERS INFORMATION FROM SUBORDINATES, THEN SMITH MAKES THE DECISION OF WHAT ACTION TO TAKE.

_____ How satisfied are you with Smith's action in deciding how the decision would be made in this situation?

1. Very satisfied
2. Somewhat satisfied
3. Makes no difference
4. Somewhat dissatisfied
5. Very dissatisfied

_____ Although no solution to this problem is given, do you feel that the solution finally arrived at for this problem would be good or poor, considering the way Smith is acting in this situation?

1. Very good
2. Good
3. Average
4. Poor
5. Very poor

Smith's group has recently been merged with a larger organization and Smith's boss has been replaced. The larger organization has moved in a manager to whom Smith now reports, but has little respect for, as the new manager has little management experience.

The new boss has sent Smith, who is head of the applied research department, a directive to the effect that some changes must be made in general work habits--primarily in the area of dress and office etiquette. A major point in this directive is that a few individuals do not present a business-like appearance; shaggy hair and no ties are of particular concern because of the possibility that outsiders might get the wrong image of the organization. Smith has argued in defense of the present practices and has said that the nature of the changes requested may well cause resentment and a fall in morale, and could even result in some of the best junior staff leaving.

Smith's boss is willing to concede the fact that the research department has an excellent performance record and that these changes are not likely to result in any improved performance, but says that the decision regarding appearance will not be reversed, whatever the outcome. Exactly what rules are adopted are apparently not important, as long as business-like appearance results. Smith has a month, after which the results of this directive must be apparent. In the event that Smith does not introduce the necessary changes, a detailed set of rules and regulations will be issued to all personnel in the department. A decision has to be made as to what rules to adopt to bring behavior into line with the general directive.

Nearly all the personnel in the research department are under thirty and have graduate degrees. These common factors of age and training, plus the department's success, have resulted in a highly cohesive group with some strongly held group norms. These norms sanction the dress and office etiquette behavior now under review. For instance, no one in the department goes to the extremes that might be seen on a campus, but department personnel believe that such matters as hair style, length of hem, tie width and shoe style should be left to an individual's personal taste.

IN THIS SITUATION, SMITH GATHERS INFORMATION FROM SUBORDINATES, THEN SMITH MAKES THE DECISION OF WHAT ACTION TO TAKE.

_____ How satisfied are you with Smith's action in deciding how the decision would be made in this situation?

1. Very satisfied
2. Somewhat satisfied
3. Makes no difference
4. Somewhat dissatisfied
5. Very dissatisfied

_____ Although no solution to this problem is given, do you feel that the solution finally arrived at for this problem would be good or poor, considering the way Smith is acting in this situation?

1. Very good
2. Good
3. Average
4. Poor
5. Very poor

27. Considering all of the different situations you have read, how satisfied are you with the overall way in which Smith decided how decisions would be made?

1. Very satisfied
2. Somewhat satisfied
3. Makes no difference
4. Somewhat dissatisfied
5. Very dissatisfied

28. Although no solutions to these problems have been given, what is your <u>overall</u> feeling of how good or poor the solutions finally arrived at for these problems would be, taking into consideration the way Smith is acting in these situations?

1. Very good
2. Good
3. Average
4. Poor
5. Very poor

29. How satisfied would you be working for Smith, as described in these situations?

1. Very satisfied
2. Somewhat satisfied
3. Makes no difference
4. Somewhat dissatisfied
5. Very dissatisfied.

30. Based on the behavior of Smith as described in these situations, what are your feelings about working for such a leader?

    1. Definitely like to remain working for such a leader
    2. Probably like to remain working for such a leader
    3. Makes no difference
    4. Probably like to quit working for such a leader
    5. Definitely like to quit working for such a leader

On the back of the answer sheet, please list any groups of which you were or are currently an active member or leader. Include only groups which actually met together and acted together. Do not include honorary groups that did not actually meet. Include groups such as Boy Scouts, Girl Scouts, school organizations, athletic teams, church organizations, etc. For those groups in which you held a leadership position, indicate below the group name what the title was and what your duties were.

After listing the groups and leadership positions, count the number of groups listed and enter this number for question 31 on the answer sheet. If the number of groups is 9 or more, enter a 9. If you were not a member of any such group, mark 10 for question 31. Now count the number of groups in which you held a leadership position, and enter this number for question 32. If the number of groups is 9 or more, enter a 9. If you were not in a leadership position in any group, mark 10 for question 32.

33. If you are a member of a work group that has an officially appointed leader, how would you prefer the leader to act?

    1. The leader makes all decisions without prior consultation with group members and then tells group members what the decisions are so that members may implement them.
    2. The leader makes all decisions, but consults with group members first to gather information and ideas. After making the decisions, the leader then tells group members what they are so that they may be implemented.
    3. The leader does not make decisions alone, but rather holds group meetings where problems are discussed and decisions are made by group consensus, which the group then implements.
    4. The leader employs all 3 of the above methods at different times, depending upon the decision to be made and implemented.
    5. It would make no difference if the leader used 1, 2, or 3 above, as long as the leader used one of them consistently.

34. If you are a member of a work group that has an officially appointed leader, do you feel more satisfied with the group leader if you can predict how the leader will make decisions?

    1. Yes, more satisfied if I can predict
    2. No, no difference if I can predict or not.

35. When you become established in a career, would you hope to be a leader of decision-making groups, or would you prefer to remain a member of the group and let others lead?

    1. Hope to be a leader
    2. Have little or no desire to be a leader