MINORITY STRESS, COPING
AND MODERATING EFFECTS OF SOCIAL SUPPORT

DISSERTATION

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TO

My Parents
Aai and Baba
ACKNOWLEDGEMENTS

Doctoral dissertation is essentially an intellectually stimulating, personally gratifying, though occasionally a trying experience. Upon completion of this challenging endeavor, it is time to pause and acknowledge my debt of gratitude to those who made this accomplishment possible.

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Stress experienced by opinion minorities in decision-making groups has not yet been studied. A central premise of this study is that during the process of decision-making an individual finds that an overwhelming majority holds a different opinion, is likely to experience psychological stress. Literature on psychological stress suggests that coping with stress is an integral part of the stress process. A variety of problem-focused and emotion-focused coping behaviors may be used to reduce or manage stress (Pearlin and Schooler, 1978; Folkman and Lazarus, 1982). An opinion minority is likely to use similar coping behaviors. Further, literature on social influence suggests that an opinion minority invites attention, but that this attention does not add any prestige, status or power. On the contrary, the existing literature suggests that a minority is disliked and derided (Nemeth, 1986; Moscovici and Mugny, 1983). It was, therefore, proposed that under conditions where the minority differs from the majority opinion, the minority will experience psychological stress.
This study examines stress experienced by opinion minorities in decision making situations and their resulting coping behaviors: their intentions to exert social influence and behavioral conformity as problem-focused coping strategies, and their intention to withdraw as an emotion-focused coping behavior. Further, it examines the role of social support as a moderating variable in the process of stress perception. Literature in the area of social support indicates that the presence of social support can be a significant factor in alleviating perceptions of stress (House, 1981; Cohen and Wills, 1985). Social support is likely to be a significant factor, especially in a specific social setting such as one involving group decision making. An opinion minority, who perceives such a situation stressful because an overwhelming majority holds an opinion contrary to its own, is likely to experience reduction in stress in the presence of a social supporter. The study was built upon theory and empirical research from three broad streams of literature: stress and coping, social influence and social support.

Research on causes and consequences of job-related stress experienced by workers in organizations has grown in recent years (Ivancevich and Matteson, 1980; McLean, 1979; Cooper and Payne, 1978, 1980; Schuler, 1980; Brief, Schuler and Van Sell, 1981). Some recent literature reviews have provided integrative approaches and theoretical models towards the study of stress (McGrath, 1976; Matteson and Ivancevich, 1979; Beehr and Newman, 1978; Newman and Beehr, 1979; Schuler, 1980). It is evident from this
literature that little attention has been paid to the experience of stress and coping mechanisms used by organizational minorities which are a large section of the working population (Ford, 1976, 1978, 1985; Ford and Bagot, 1978). So far no studies have been reported on stress experienced by opinion minorities in decision making situations. Few studies have dealt with stress experienced by other types of minorities such as racial minorities (Brown, 1975; Brown and Ford, 1977; Edwards, 1980; Ford, 1976, 1978, 1979, 1984, 1985; Ford and Bagot, 1978; Ramos, 1975) and gender minorities (Cooper, 1981; Davidson and Cooper, 1984; Terborg, 1985). Some of the integrative models consider gender and race, but only as miscellaneous individual difference variables. Beehr and Newman (1978) explicitly included the variable of race in their comprehensive model, but they also noted that it has not been studied within the context of work-related stress.

Since there has been no research in the area of stress perceptions of opinion minorities, this study was based on extrapolations made from the literature in two areas which are closely linked to the topic of study: 1) stress experienced by other types of minorities such as racial-ethnic and gender minorities, and 2) minority influence research which discusses the role and the impact of opinion minorities in small group settings. On the basis of the literature reviewed from these two areas it is argued that being an opinion minority is a stressful experience.

The first set of studies pertaining to racial-ethnic or gender minorities may be described as studies on demographic minorities. The characteristics
which form the basis of classifying people into majority and minority may change from one situation to another. For instance, in some settings, demographic characteristics such as race, gender or region of origin can be the bases of formation of majority and minority. Individuals in these minority groups are trapped into being minorities because they can do very little about changing their status as minorities.

The second set of studies deal with minorities who differ from others in terms of opinions they hold. Maass and Clark (1984) differentiated between demographic minorities and opinion minorities. Deviates in the scientific communities such as Copernicus, Galileo, Marx and Freud are cited as historical examples of opinion minorities. Any social movement has its beginnings when one or a few individuals holding a different opinion than the majority. Our history is marked with numerous examples of the struggle of opinion minorities attempting to influence the majority opinion.

In addition to social or scientific movements conducted over a long period of time, opinion minorities can be seen in more specific situations like organizational group decision making. During the process of decision making, an individual who wishes to express his or her real opinion is similarly confronted by others to change his/her opinion. Further, there can be differences among opinion minorities. An opinion minority member who holds a different opinion, differs from an opinion minority member who represents a minority group. Literature in the area of collective bargaining and negotiation has dealt with minority representatives and efficacy of their bargaining behavior (Klimoski, 1978; Walton and McKersie, 1965). This study
focuses its attention on minority individuals who hold different opinions, and not on those who represent opinion minorities.

A strong body of literature in social psychology indicates that the group does respond negatively towards an opinion deviate (Emerson, 1954; Schachter, 1951). Although considerable research since the 1950s has looked at nonconformity behavior on the part of a minority (see Allen, 1965, 1975 for literature reviews), most of it has concentrated on how the majority members respond negatively to social deviates. There are suggestions that opposing a consensus group creates stress and anxiety for the minority (Asch, 1951, 1952), but this area has not been researched systemically. Research on interpersonal influence processes has traditionally dealt entirely with unidirectional influence of majority over minority. We need to focus our attention on the stress experienced by minorities, and how it can be alleviated so that the minorities can contribute constructively to organizations.

However, a recent stream of literature, emanating from research on social influence, suggests that there are situations when minorities can shape and influence the majority opinion (Moscovici and Nemeth, 1974; Nemeth and Wachtler, 1973; Moscovici, 1980, 1985; Nemeth, 1986). These researchers deal with a much broader perspective of social influence. They contend that all the members of a group or an organization can exert social influence, and can be influenced, regardless of whether they belong to a majority or a minority. They question whether consensus is always desired and whether
deviance is always detrimental. Further, they assert that exposure to
differences fosters diversity of views and novelty of ideas (Moscovici, 1985;
Nemeth, 1986). Minorities can, by their very nature, contribute effectively to
fostering differences. As members of organizations which need to adapt
continually to changing environment, their creative contributions can help
in the process of organizational change and adaptation by suggesting new,
innovative approaches. Pinchot (1985) describes this kind of contribution as
intrapreneuring, a combination of vision, action, and dedication necessary to
fill gaps in organizational functioning.

Research on stress experienced by minorities in general, as stated
earlier, is scant; and research on opinion minorities in particular is non-
existent. Stress experienced by demographic minorities, therefore, suggests
that opinion minorities may experience a similar stress process. This study
examined the relationships among stress experienced by minorities who hold
a different opinion than the majority, the extent to which social support
moderates perceptions of stress, and how coping behavior varies as a
function level of perceived stress. Two types of coping behaviors included in
the study were: 1) Problem-focused coping: behavioral conformity and
intention to exert social influence over the majority, and 2) Emotion-focused
coping behavior: withdrawal.
Importance of this Study

The study builds on the research in three broad areas: stress and coping; social influence and, social support. More specifically, it draws its arguments from literature on minority stress and coping; minority influence and social support. Research in the area of opinion minority stress and coping has significant theoretical and practical implications.

First, the study suggests that, if managed appropriately, opinion minority stress can be functional to the group decision making process. Practitioners involved in group decision making can improve the quality of their decisions, by creating moderate level of stress, and by encouraging open discussions of diverse opinions. With increasing integration of people from diverse cultural backgrounds into organizations, brought about by immigration and affirmative action efforts, the practitioners are often faced with the challenge of managing opinion differences effectively. Research on minority influence suggests that opinion differences lead to innovation, creativity, and better quality decision making (Moscovici, 1985; Nemeth, 1986). However, caution must be exercised that the differences of opinions do not lead to highly stressful conditions for the minority resulting in their withdrawal. Further, fostering differences of opinions may not always be a desirable option. While working under time pressure, conformity may be necessary to facilitate a quick decision.
Second, the study contributes to understanding of minority stress, a new area of stress research. This study examines minority influence and behavioral conformity as stress coping strategies and, withdrawal as an emotion-focused coping behavior, by focusing directly on the minority. Most of the research on social influence has adopted attribution framework by asking members of the majority about what they think of the minority. This study differs from the conventional research in that it focuses on cognitions of opinion minority about their own perceptions of stress, social support and coping intentions.

Research Questions

The main focus of this study is on perceptions of stress and resulting coping behaviors of opinion minorities in decision making groups. Members in a decision making group are usually involved in social interactions which lead to attempts to influence others' opinions. The process implies that an opinion minority is confronted by others who not only hold different opinions but also attempt to change the minority opinion. While acknowledging the fact that both the factors (differences in opinions and attempts to change others' opinions) are potential stressors, the present study focuses on one of these two potential stressors, viz. differences in opinions. The research focus was formulated into three principal research questions:
1. Is there a substantial difference between stress levels experienced by individuals holding a minority opinion in a decision making group and those holding a majority opinion?

Evidence from existing literature on racial minorities and women in minority is suggestive of stress experienced by other minorities as well. As discussed earlier, no research has so far been reported on stress experienced by opinion minorities in decision making groups. The present study was designed to compare opinion minorities and opinion majorities in a laboratory setting.

2. Do differences in perceptions of stress result in different types of coping behaviors?

This research question addresses two issues. First, the existing literature on coping suggests that a variety of coping behaviors are used to cope with stress. These are often grouped by the functions they serve such as problem-focused coping, emotion-focused coping (Pearlin and Schooler, 1978; Folkman and Lazarus, 1982); or control, escape and symptom management (Latack, 1984). The research question deals with coping behaviors which are considered relevant to specific decision making situations. The coping behaviors examined in this study are therefore restricted to three major behaviors: attempt to influence the majority opinion, conforming to the majority opinion and withdrawal. The first two
behaviors were seen as problem-focused coping because they aim at altering cause of stress, viz. differences in opinions. The third coping behavior, viz. withdrawal, is seen as emotion-focused because it deals more with managing the emotions than with solving the problem. Further, the experimental design of the study precluded observation of actual behaviors. Expressed intention to engage in the three coping behaviors by the research participants was taken as a measure of intention to use these coping behaviors.

Second, the question also implies that different types of coping behaviors may be effective under different levels of stress. The literature on stress and performance suggests a curvilinear relationship between the two variables (Selye, 1956; Vroom, 1964; Allen, Hitt and Greer, 1982; Baddeley, 1972; Cleland, 1965; Cohen, 1980; Ivancevich and Matteson, 1981; McLean, 1979; Megalino, 1977). It was, therefore, suggested that a similar curvilinear relationship may exist in opinion minority individuals' perceptions of stress and their attempts to influence the majority opinion. In other words, their desire to solve the problem by influencing the majority opinion was expected to be the strongest at moderate levels of stress and the least at the extremes: lower and higher levels of stress.

3. Does presence or absence of social support moderate the influence of opinion minority status on perception of stress?

A considerable body of literature on social support has dealt with moderating effects of social support on the process of stress perception (see
Abdel-Haiem, 1982; House, 1981; Cohen and Wills, 1985; for reviews). The results are not conclusive. Most of the studies were conducted in the field. Research under controlled experimental conditions has been largely restricted to animals (House, 1981). In view of the mixed results and lack of experimental studies on moderating effects of social support on stress among human participants, it was considered worthwhile to include social support as a moderating variable in this study. The study examined the role of social support in alleviating opinion minority's stress perception.

Research Method

A laboratory experiment was conducted by employing a case study, videotaped group discussions and questionnaires. The participants were undergraduate business majors at a large midwestern university. The data was analyzed using t-tests, correlations, hierarchical multiple regression and factor analyses, along with conventional summary statistical analyses.

An Overview

The dissertation is divided into six chapters. Chapter 1 provides an introduction, focus and research questions, and a brief overview of the research study.
Chapter II presents a detailed survey of the literature. The scope of the literature survey was dictated by the focus of the topic. Three broad streams of research are reviewed, viz. stress and coping, social influence (conformity and minority influence), and social support. Literature on stress experienced by other organizational minorities (racial-ethnic minorities and women in minorities) is reviewed to build a case that being in a minority is a stressful experience. Chapter II also presents research questions in the form of testable hypotheses.

Chapter III outlines the research methodology. Instruments constructed and employed to measure the variables of interest are described. Information on psychometric properties of the measures is also presented in this chapter. Data analyses and results of hypotheses tests are presented in Chapter IV.

The discussion and reconciliation of the results with the research questions and hypotheses are presented in Chapter V. Theoretical and practical implications of the research are discussed in the same chapter. The final chapter, Chapter VI, summarizes the study. It also lists limitations of the present study and provides suggestions for future research.
CHAPTER II

A LITERATURE REVIEW

The main objective of the study was to examine the relationship between stress experienced by opinion minorities in decision making groups and their resulting coping behaviors: conformity and intention to influence as problem-focused coping strategies, and withdrawal as an emotion-focused coping behavior. The study also examined moderating effects of social support on the perception of stress. This chapter presents a literature review of three broad streams of research. First, relevant literature on social influence: conformity and minority influence is reviewed. Second, research in the area of stress experienced by racial-ethnic minorities and women in minority is used to build a case for stress perceptions of opinion minorities. Third, literature on social support is reviewed to examine its role as a moderating variable in the process of stress perception. Literature on stress experienced by other organizational minority groups (racial-ethnic minorities and women), is reviewed to support the argument that being a minority can be a stressful experience.
Social Influence Literature: Conformity and Nonconformity

Since its beginnings, literature on social influence has been dominated by an interest in the process of conformity, i.e., the movement of minority individual or individuals towards the position of the majority. Early classic studies by Sherif (1935) on establishment of norms and Asch (1952, 1955) on conformity behavior in small groups, indicated that the movement towards the majority position occurs even when the majority position is clearly incorrect. The phenomenon of conformity generated a plethora of research and became almost synonymous with social influence (Festinger, 1950, 1953, 1957; Schacter, 1959; Allen 1965, 1975).

The terms conformity and nonconformity have been defined in different terms. The term conformity is sometimes used to "explain" the opinion agreement of an individual with the group. However, the term is used more often to describe behavior which is influenced by the group, and resulting in increased behavioral congruence between the individual and the group. Such conformity is often called public compliance, in contrast to private acceptance (Festinger, 1953; Kelman, 1958, 1961; Moscovici, 1980). Similarly, the term nonconformity may reflect independence (Asch, 1951) or anti-conformity (or what Crutchfield called counterconformity). These various conceptualizations of conformity and nonconformity have one common underlying notion: public compliance behavior occurs when the group membership is valued. The present study of opinion minorities involved in group decision making, represented a temporary group which did
not control long-term rewards or punishments over its members. It was, therefore, expected that conformity behavior under these conditions was more likely to be public compliance than a true conversion of the minority to the majority view.

The fact that a group can influence an individual to adhere to the expected norms of behavior has been well-established in social psychology. Allen (1965) stated that it is worth noting that both social psychologists and lay people censure conformity behavior, perhaps because it implies slavish submission or a cowardly yielding of one's own beliefs. Consistent with such an interpretation, most psychological experiments were designed so that conformity was by necessity maladaptive. This view of conformity, in his opinion, was often oversimplified. Conformity frequently improved the functioning of a group by reducing conflict and tension. For this reason group leaders often encourage conformity behavior by individual members.

Minority Influence

A comparatively recent trend in the literature on social influence, however, propagates a view that opinion deviance may be desirable in certain situations. The minority may actively promote its own position and influence the majority. Research by Moscovici and others in the last two decades deals with this new perspective of social influence (Moscovici, Lage and Neferchoux 1969; Moscovici and Nemeth 1974; Nemeth and Wachtler 1973;
1983, Moscovici, 1980, 1985; Nemeth 1986). These researchers contend that the traditional functionalist model of social influence has been one-sided by assuming that the majority is always influential. The following section focuses on this new perspective of social influence.

The new "genetic model" proposed by Moscovici questions whether the minority deviance is always undesirable. He asserts that social change is as much important an objective as is social control. Social control may be a dominant mode of influence in some institutions like the family, school or church; but social change is desired much more in other institutions dedicated to the progress of science, arts and fashions. While the majority exerts pressure to reduce conflict and thereby attain conformity, the need for social change and innovation implies the creation of conflict. Research shows that when they are exposed to differences in opinions, individuals, as well as groups find more novel solutions to problems, make better decisions and show greater creativity (Moscovici, 1985; Nemeth, 1986). Although differences in opinions create conditions for developing conflict, the conflict is seen as functional and necessary for progress.

Further, although minorities are pressured to conform, not all minorities are treated alike. They differ in the degree to which they evoke such a reaction. Deviates in social movements (for instance, the civil rights movement of the 1960s, or more recently the anti-nuclear war and environmental movements) differ from natural and social minorities such as women, Blacks, Jews, Hispanics, and foreigners. Opinion minorities are
likely to be subjected to greater pressure to conform, since they differ only in terms of their opinion, which can be altered. Ethnic, racial or gender minorities, on the other hand, are trapped into being minorities which characteristically cannot be changed. They experience discrimination and stress because of their minority status. If they also differ in opinion, they assume a status of double minority, and are suspected to have more vested interests (Maass and Clark, 1984).

Maass and Clark (1984) state that demographic minorities and opinion minorities are not exclusive of one another. A person may belong to more than one minority category at the same time. In this context; Maass, Clark and Heberkon (1982) proposed a distinction between single and double minorities. Single minorities are defined as individuals who deviate from the majority only in terms of their beliefs. Double minorities, in contrast, differ from the majority not only in terms of their beliefs, but also in terms of their ascribed demographic category of membership. The focus of the present study was on opinion minorities, not double minorities. While testing empirically, it becomes necessary to control the effects of double minority status. This study classified as double minorities those individuals who differed in their appearance from the majority and excluded the data provided by them from further analyses.

Another question that is often asked is: "Is minority influence qualitatively different from the influence exerted by the majority? "
A recent controversy is centered around this issue. Do minority influence and majority pressure to conform follow qualitatively similar or different processes? Moscovici (1980), in his conversion theory, argued that majority influence leads only to public compliance in behavior; whereas consistent minorities are likely to produce private acceptance or more internalized attitude change (in another word, a conversion). Some other researchers (Nemeth, 1986) have extended these findings beyond conversion of attitude on a particular issue. Openness to innovation, creativity and better quality decisions are attributed to the presence of minorities (Moscovici, 1985; Nemeth, 1986).

Other studies comparing these two social influence phenomena have suggested that one common process underlies both minority influence and conformity (Latane' and Wolfe, 1981; Tanford and Penrod, 1984; Doms, 1984). The reasoning on which they are based is that everything else being equal, majorities, due to their greater number, will have a greater influence than minorities. The minorities can compensate for this numerical weakness by showing greater consistency (i.e., strength) than the majority. Doms and Avermaet (1980) and Doms (1984) also observed that individuals were vulnerable to minority influence only as long as the minority was more consistent than the majority. When individuals received consistent support from other majority members, minority influence was dramatically reduced. This research, therefore, suggests stronger support to the view that a common process of social influence underlies conformity and minority influence.
Finally, such controversies are characteristic of a newly developing field of research. There is a need for theoretical integration of empirical research findings. Although considerable research has been generated over the last few years, it has only been recently that some investigators have begun to develop common frameworks (Nemeth, 1986). This study provides a new process-oriented approach to study minority influence and behavioral conformity as stress coping strategies. At this stage, it does not intend to provide an integrative framework for research on minority influence, nor does it compare minority influence with conformity.

Stress and Coping

The need and the importance of understanding organizational stress have led to considerable research in the area. A major portion of this research originated in medical and health sciences. Earlier researchers interested in organizational stress focused on diseases and symptoms most commonly associated with human lives, such as cardiovascular disorders, peptic ulcers and hypertension (see Ivancevich and Matteson, 1980, for a literature review). High costs associated with organizational stress drew attention of several researchers to the area of organizational stress. It was estimated that for every employee killed in an industrial accident in America, fifty suffered from cardiovascular disorders. Cardiovascular
diseases and peptic ulcers alone were estimated to impose a cost of 45 billion dollars annually to the nation (Moser, 1977).

Stress research in organizational behavior and industrial psychology has subsequently looked at a large number of behavioral and psychological reactions other than physiological symptoms. Beehr and Newman (1978) classified these into three main categories: physiological, psychological (cognitive and affective), and behavioral. These categories encompass a large number of individual responses, and therefore provide a much broader range of variables to study than the two most commonly used dependent variables, viz. satisfaction and performance. In fact, Schuler (1980) argued that satisfaction and performance may be two of the several important foci of attention in stress research. He stated that by focusing research attention primarily on these two variables, we may be overlooking other data and organizational and individual qualities which may be even more directly related to the cost of organizational operations and employee health. Staw (1984) also expressed a need to explore other aspects of organizational behavior. The present study, by focusing on stress experienced and coping behaviors used by opinion minorities, answers this call to examine variables other than satisfaction and performance.
What is Stress?

Stress is not a precise concept. Several literature reviews (Beehr and Newman, 1978; Ivancevich and Matteson, 1980; Schuler, 1980) indicate differences in the meaning of the term as well as in the process of how it occurs. Stress has been defined in many ways, in both broad and narrow terms. Most of the definitions, however, include a common notion that a mismatch between a person and the demands of the environment generates perceptions of stress. The present study used this notion of P-E (Person-Environment) fit to examine stress perceptions of opinion minorities.

One of the early definitions by Selye (1956) describes stress as "a nonspecific response to any demand." In more specific terms, stress has also been described as "an external force operating on a system" (Hall and Mansfield, 1971). According to this definition stress is an external environmental stimulus. This stimulus creates a corresponding internal strain in the system. This definition differentiates between stress and strain. These two terms, however, are also used interchangeably in the literature. Other definitions of organizational stress describe the same notion of P-E fit in slightly different terms (French, Rogers and Cobb, 1974; Caplan, Cobb, French, Van Harrison and Pinneau, 1975; Margolis, Kroes and Quinn, 1974; Beehr and Newman, 1978).
Implicit among several definitions of stress is the notion that any mismatch between the individual and the environment would result in stress. The present study uses the definition of stress proposed by Schuler (1980). It incorporates several other definitions to include the idea of Person-Environment fit (P-E fit), as well as functional and dysfunctional aspects of job stress. According to this view, individuals perceive job stress as presenting opportunities, constraints and demands. Thus, stress may be viewed as beneficial if the members of the minority perceive the situation as presenting an opportunity to present their views and to satisfy their needs and values. Alternatively, if the situation is perceived as creating constraints or heavy demands, stress may be viewed as dysfunctional. The inverted-U relationship found between stress and performance in empirical research is consistent with this definition:

"Stress is a dynamic condition in which an individual is confronted with an opportunity, constraint, and/or demand for being/having/doing what (s)he desires and for which the resolution is perceived to be uncertain, but which will lead (upon resolution) to important outcomes."

This definition of stress includes both functional and dysfunctional aspect of stress, and therefore suggests that stress can influence coping behavior in many ways. It is consistent with the inverted-U nature of the relationship between stress and its behavioral consequences. This indicates that there is an optimum amount of stress when performance reaches its peak; beyond this level stress ceases to be functional. Stress that is higher or
lower than this amount results in decreasing performance. Performance under stress, in other words, follows an inverted-U function. This concept of curvilinear relationship between stress and performance can be traced back to the work of Yerkes and Dodson (1908), and has therefore been known as the Yerkes-Dodson law. Hans Selye (1956), while studying the process of physiological stress, noticed that organisms adopted an adaptive strategy in response to stressors. He identified these responses as the General Adaptation Syndrome (GAS). Three distinct phases of GAS were alarm, resistance and exhaustion. Exhaustion refers to the phase when the organism lacks the ability to withstand more stress, and fails to function.

Development of activation theory (Scott, 1966) provided further support to this model of a curvilinear relationship between stress and performance. Several explanations have been offered for the nature of this relationship. Vroom (1964), while reviewing the studies which demonstrated curvilinearity, provided two explanations for decrease in performance under a high level of stress. First, the level of stress is so taxing that the individual’s perceptions narrow down to only a few cues. This has an adverse impact on performance. Second, high anxiety associated with high levels of stress gives rise to automatic physiological responses which interfere with the performance. The primary focus shifts to reducing the anxiety rather than to performing the task. This reasoning is consistent with the explanation provided by the activation theory which states that under low levels of stress individuals are not motivated enough to perform well; and under very high levels of stress they may spend more time coping with
their emotions, resulting in reduced attention to job performance (Scott, 1966).

Many investigators have supported the curvilinear nature of the relationship between stress and performance (Allen, Hitt and Greer, 1982; Ivancevich and Matteson, 1981; Mclean, 1979; Megalino, 1977; Moss, 1981). A number of laboratory studies have lent support to this hypothesis (Baddeley, 1972; Berkun, Bialek, Kern and Yagi, 1962; Cleland, 1965; Cohen, 1980; Janis and Mann, 1969). Field studies have been rare, with an exception by Anderson (1976) in which he reported a curvilinear relationship between perceived stress and performance by owner-managers of small businesses who had suffered hurricane flood damages. The concept of coping, which is directly related to stress, and literature in the area of coping are reviewed later in this chapter. Before elaborating on the literature on coping it is desirable to review studies in the area of minority stress, and to extend these findings to minorities in general and opinion minorities in particular.

Minority Stress

Although considerable research in the area of work-related stress has appeared in the past couple of decades, the topic of minority stress has been, until very recently, noticeably absent from this research. A minority, as discussed earlier, can be formed either on the basis of its ethnic or demographic background, or on the basis of differences in opinions. Some empirical studies have been conducted in the area of stress experienced by ethnic or gender minorities. Empirical research on stress perceptions of
opinion minorities has been virtually absent, although there are suggestions
that being an opinion minority may be a stress producing experience (Asch,
1951; Nemeth, 1979, Maass and Clark, 1984; Moscovici and Mugny, 1983).
Following is a review of representative studies of stress experienced by
minorities from two broad areas: 1) racial and ethnic minorities, and 2)
women in minority. These minority groups are similar to opinion minorities
in one characteristic: they are outnumbered by people belonging to an out-
group. They differ from opinion minorities in that the demographic
minorities cannot alter their minority status, whereas the opinion minorities
can change their opinion and merge with the majority. The literature
reviewed in the following section illustrates why and how being a minority
can be a stressful experience for these two demographic minority groups.
Findings from the literature are extended to make a case that being a
minority in general, and an opinion minority in particular, is a stressful
experience.

Racial - Ethnic and Gender Minorities

Few studies published during the last decade have dealt with
experiences of discrimination and stress suffered by racial-ethnic minorities
and gender minorities. Most of the studies on racial-ethnic minorities have
concentrated largely on experiences of blacks (Alderfer, Alderfer, Tucker and
Tucker, 1980; Alderfer and Smith, 1982; Brown, 1975; Brown and Ford, 1977;
Cobbs, 1981; Edwards, 1980; Ford, 1984; Ford and Gatewood, 1976;), whereas
some have compared stress experienced by such other ethnic minorities as Hispanics, American Indians and Mexican Americans (Adams, 1978; Ramos, 1975; Ford and Bagot, 1978; Ford, 1980).

Race-related stress in work organizations is an unavoidable organizational reality. Brown (1975) referred to stress suffered by black federal executives as caused by the "Black Tax". As blacks move into management ranks, the tax gets heavier. Some of its stress inducing characteristics are: 1) conspicuously increasing powerlessness, although higher ranks are supposed to grant greater power; 2) a mutual distrust between black executives and their white peers indicative of lack of cohesiveness and increasing inter-group conflict; 3) participating and rationalizing organizational policies which may not serve career interests of blacks; 4) attempts to prove competence through "workaholism" which lead to role overload. These conditions lead to creation of an imbalance between job expectations and opportunities, conflict among peers, career goal discrepancies and role overload are clearly indicative of the presence of stressful conditions. Matteson and Ivancevich (1979) state that role overload, career-goal discrepancy, lack of cohesiveness and intergroup conflict can be major stressors. The characteristics described above are related directly to these stressors, and therefore indicate a strong possibility of the presence of stress.

Studies on discrimination and stress experienced by blacks have reported remarkably similar findings. The overall findings were that the
blacks, more than the whites, experienced unfair treatment in hiring practices, promotional systems, job assignments, evaluations and sharing of relevant career information (Alderfer and Smith, 1982; Alderfer, Alderfer, Tucker and Tucker, 1980). They are overscrutinized, given less margin for error, and excluded from informal lines of communication. They lack role models and have little access to mentoring relationships (Cobbs, 1980). Several of the stressors described by Matteson and Ivancevich (1979) can be seen operating under circumstances which lead to blockage of career progress, and create role overload and intergroup conflict. Uncertainty associated with important outcomes is a significant stress-producing condition (Beehr and Bhagat, 1985), and is, therefore, very likely to lead to a high level of stress.

Few studies have examined stress experienced by other ethnic minorities and women, in addition to blacks. For instance, Ramos (1975) examined job-related stress experienced by American Indian males, black males and white males and females. The results indicated that the minority persons experienced more stress than did the majority persons, thus confirming most of the hypotheses. Similar stress experiences were reported in a series of studies on blacks and Mexican-Americans (Ford, 1980; Ford and Bagot, 1978). Black subordinates working under black supervisors reported lower levels of stress than did black or Mexican-American subordinates of white supervisors. Mexican-American females reported greater stress than Mexican-American males.
Studies on women in minority report similar stress producing conditions: perceptions of discrimination, lack of control at work, lack of appropriate role models or mentors, and lack of social support. Although the number of women in the work-force has increased considerably over the last few decades, women are still found in minority in many traditionally male dominated occupations. Occupations which are traditionally considered female include: secretary-clerical, elementary teachers, nurses, service employees and domestic workers. Brief, Schuler and Van Sell (1981) report that these traditionally female occupations tend to have low wages, limited opportunities for promotions, few on-the-job-training programs, and weak labor unions. Male-dominated occupations, in contrast, are generally characterized by their developmental nature and career progression. Individuals in these jobs require a higher degree of commitment and planning than do others in unrelated series of jobs or part-time jobs.

Women in male-dominated occupations experience problems in advancing their careers. They are at a disadvantage while attempting to divide their attention between career and family (Terborg, 1985). It has been observed that women in male dominated occupations are more likely to be childless or single (Beckman, 1978). Moreover, employed women have fewer children and expect to have fewer children so that they can cope with the demands of the job market (Lemakau, 1980). These women are very concerned about possible interference in their careers resulting from their marital and family responsibilities. Cultural prescriptions of sex-role create tremendous pressures on career women, especially in male-dominated
occupations. These conditions create greater stress for women than they do for men.

A series of surveys conducted by British investigators showed that women in managerial positions suffer from stress at work (Cooper, 1981; Davidson and Cooper, 1984). They exhibited greater behavioral and psychosomatic manifestations of stress than did the male managers. Women in junior and middle management positions experienced the highest level of overall stress. They were followed by male supervisors, senior women managers, junior male managers, female supervisors, and finally senior male managers, who experienced the lowest occupational stress. A large majority of participants agreed that the stress they experienced at work was closely related to responsibilities of the job. Lack of control over the work situation appeared to be an important stress producing factor. The greatest degree of stress was reported in their working relationship with their superiors. A common assumption that women are less competent than men appeared to be at the root of this area of stress. Women had to work harder than their male counterparts, in order to be perceived as being competent.

When women are in the minority, they are less likely to receive social support and technical assistance (Holahan, 1979; Macky-Smith, 1982). There is further evidence that managers with traditional sex-role stereotypes engage in behaviors that create distance between them and their female subordinates. Rosen (1982) found that women, due to their presumed incompetence, are given routine assignments to minimize damage. Another
study uncovered more subtle forms of discrimination, such as reluctance to provide concrete feedback to female low performers. Women also feel excluded from informal social networks (Rosen, 1980), resulting in their lack of involvement, problems of adjustment and experience of stress. Career-goal discrepancy, lack of cohesive interpersonal support and intergroup conflict, which were listed as major stressors (Matteson and Ivancevich, 1979) affecting ethnic minorities, similarly apply to women in minority positions.

Women appear to suffer from unique stress as minorities. A study of the stress experiences of black and white women employees showed that when compared to their white female counterparts, black women suffered a significantly greater proportion of psychological ailments (Ford, 1984). Ford suggested that race appears to be a greater discriminating factor than does sex. Since the study did not involve men, he recommended further systematic research involving cross-sex and cross-race variables. Another study (Edwards, 1980) on stress experience of black women examined participants' perception of social support and its influence on their perceptions of stress and job satisfaction. A conceptual scheme of social support was developed involving three facets of social support: emotional support, informational support and structural support. The results indicated that lack of social support accounted for a large variance in perceptions of stress and job satisfaction of black women.

In conclusion, based on the literature on stress experienced by these diverse minority groups, it is argued that being a minority is a stressful
experience. The research support discussed above emanates from such
diverse areas as racial-ethnic differences, and gender differences. The
literature reviewed in these broad areas of stress experienced by racial and
ethnic minorities and women shows that while there are some stressors
that are unique to each group, there are several other stressors which they
have in common. The common stressors arise because individuals in these
groups are in minority and that they are outnumbered by an out-group.
Members of all these minority groups experience lack of power, lack of social
support, lack of role models, lack of informal network support which
provides access to important information, and lack of cohesiveness, as well
as intergroup conflict. A combination of these factor leads to minority
stress.

Minorities formed on the basis of an unchangeable characteristic like
race, ethnic background or gender, as evident from the research discussed
above, do experience stress. Opinion minorities, outnumbered by an
overwhelming majority which holds a different opinion, experience an
imbalance between their true beliefs and opinions, and the social forces
impinging upon them, leading to perceptions of stress and attempts to cope.
The following section examines the concept of coping and some studies on
coping considered relevant to this research study.
Coping

Coping is considered a critical component of the stress process (see reviews by Coelho, Hamburg and Adams, 1974; Moss, 1977; Janis and Mann, 1977; McGrath, 1976; Lazarus and Launier, 1978; Cohen and Lazarus, 1978). However, despite the growing conviction that coping plays an important role in determining stress level, there is little systematic research on the role of coping (Folkman, 1982). Recent years have seen a beginning of empirical tests of the coping process in work organizations (Anderson, 1976, 1977; Folkman and Lazarus, 1980; Pearlin and Schooler, 1978; Feldman and Brett, 1983; Latack, 1984). These studies are reviewed and their relevance to this research study is discussed in the following section. Before reviewing the current research, it is desirable to define the concept of coping and explain how it relates to the process of stress perception.

Coping is defined as behavior which protects people from being psychologically harmed by problematic social experience (Pearlin and Schooler, 1978). The core of the concept of coping assumes that individuals actively respond to the forces impinging upon them. Since many of these forces are social in origin, it becomes imperative to examine the social context while studying coping behavior of individuals. It is, therefore, important to include the context of the members of the majority while examining the stress perceptions and coping behaviors of the minority. In the
context of a decision-making group, members of the majority who hold a
different opinion, and during the course of social interaction who are
expected to influence the minority opinion, create a contextual force for the
minority which is counteractive to the force created by the minority's own
opinions.

The concept of coping implies managing such counteractive forces in
an effective manner. Lazarus and Launier (1978) defined coping as a
"process of managing external and internal demands that tax or exceed the
resources of the person." The coping process has two aspects. First, it refers
to an appraisal of what is happening in a stressful situation, which in turn
influences perception of stress. This implicit process of appraisal, although
not examined in this study, must be recognized because it has a direct
bearing on coping strategies chosen by a person while that person evaluates
a potentially stressful situation. Second, it refers to efforts to change the
environment. In the context of the present study, coping is seen as a
behavioral decision taken by the minority, such as whether or not to exert
social influence over the majority. The study presumes that the minorities
appraise the situation before feeling the stress, and then react to the
situation. It intends to measure perceptions of stress and behavioral
reactions of the minority. This study did not intend to measure the process
of appraisal directly, but it did recognize its implicit role in stress perception.
Literature on coping also reveals a concern with its two major functions (Pearlin and Schooler, 1978; Folkman, 1982; Folkman and Lazarus, 1982): problem-focused coping, directed at altering the source of the stress or the problem and emotion-focused coping, directed at reducing the tension and restoring equilibrium by using defense mechanisms and cognitive reappraisals. Both of these coping strategies are described to be situation specific. Latack (1984) added a third category called symptom management, which is not linked to specific situations, but is brought into play at a more global level, in connection with symptoms which could be a result of a variety of situations. Since the present study deals with a specific stressful situation involving opinion minorities in a group decision setting, it is considered appropriate to examine the role of situation specific coping reactions: problem-focused and emotion-focused coping.

Anderson's (1976, 1978) field studies on coping behaviors used by owners-managers of small businesses in a hurricane flood revealed a concern with the two functions of coping. He (1978) reported a positive linear relationship between perceived stress and emotion-focused coping, and an inverted-U relationship between perceived stress and problem-focused coping. This research study on coping behavior of opinion minorities hypothesized a similar curvilinear relationship between perceptions of stress and a specific problem-focused coping behavior, viz. attempts to influence the majority; and a positive linear relationship between perceptions of stress and an emotion-focused coping behavior of withdrawal. Further, based on literature on conformity and nonconformity discussed in the following
section, it hypothesized a negative linear relationship between perceptions of stress and conformity behavior.

Another landmark longitudinal study in the area of coping was conducted by Folkman and Lazarus (1980). The participants were middle-aged community residents. The concept of coping was based on ongoing transactions between the person and the environment in a reciprocal action, each affecting and in turn being affected by the other. This conceptualization of coping falls within the cognitive-phenomenological theory of psychological stress. The investigators collected information about recent stressful events during one year of daily living. The data indicated use of both problem-focused and emotion-focused coping. The study emphasized that coping conceptualized as either problem-focused or emotion-focused is incomplete — both functions usually are used simultaneously, as was shown in most of the episodes (98%). On the basis of their conclusion that both the coping strategies are used simultaneously, this study of coping strategies used by opinion minorities examined both problem-focused and emotion-focused behaviors specific to the situation under study.

While discussing the concept of coping, Pearlin and Schooler (1980) distinguished among its three dimensions: social resources, psychological resources and specific coping responses. Of these, social resources refer to interpersonal networks of family, friends, co-workers, neighbors and other associates. These refer not to what individuals can do when they experience stress but what resources are available to them to cope with the stress.
Pearlin and Schooler (1980) acknowledged this, and therefore, decided to concentrate on the other two dimensions of coping in their study: psychological resources and specific coping responses. In contrast to social resources, individuals can draw upon their psychological resources, which include emotion-focused coping and personality traits. The third dimension of specific responses to stressful situations refers to concrete actions by people to deal with stress; which, in other words, is problem-focused coping. Their empirical investigation, therefore, concentrated on the use of two functions of coping: problem-focused and emotion-focused. Use of specific coping behaviors (i.e., problem-focused coping) and psychological resources (i.e., emotion-focused coping) was particularly relevant to the present study because it focused similarly on specific coping behaviors such as conformity and attempts to exert influence over the majority (problem-focused strategies) and withdrawal (emotion-focused coping behavior).

Conformity, Nonconformity and Coping

Literature in the area of conformity indicates that both conformity and nonconformity behaviors can be used as problem-focused coping strategies by opinion minorities involved in decision-making situations. Problem-focused coping, by definition, attempts to alter the root cause leading to stressful conditions. In the context of opinion minorities, the cause of the problem lies in differences of opinion. This cause can be altered by changing
the position either of the majority or of the minority. When the minority changes its position, either publicly or privately, it can be described as a problem-focused strategy of conformity. When the minority succeeds in changing the opinion of the majority to its own, the minority behavior can be described as a problem-focused strategy of nonconformity.

The terms conformity and nonconformity are used to convey several different meanings. In the present study, the term conformity is used to imply only behavioral conformity, not total conformity including change of opinion. In other words, the present study focused on stress experienced by minorities who continue to differ in their opinion, either privately or publicly. It did not focus on minorities who change their opinion and become a part of the majority. Similarly, the term nonconformity is used to imply expression of a different opinion by the minority. Such nonconformity may result from independence of opinion or from anti-conformity behavior by the minority. Regardless of the causes underlying the nonconformity behavior, when minority persons decide not to adhere to the group opinion and to express a different opinion, it can be described as nonconformity behavior.

This research study proposed that when a person is exposed to a unanimous disagreement from a group, the situation would lead to perceptions of stress. Depending on the level of stress experienced, the person may choose publicly to conform or not to conform. Further, regardless of the public responses, the individual may privately agree or disagree with the
group. The situation may lead to any one of the following four categories of social influence.

(a) Public conformity and private agreement
(b) Public conformity and private disagreement
(c) Public nonconformity and private agreement
(d) Public nonconformity and private disagreement

Of these, two categories were relevant to the present study, viz., (b) public conformity and private disagreement, and (d) public nonconformity and private disagreement. The other two categories were considered beyond the scope of the present study for the following reasons. Substantial research conducted in the area of conformity behavior of minority has dealt with public conformity and private agreement (a). Members of minority always begin with private disagreement of opinion. During the process of interaction they may change their opinion and conform to the majority. While recognizing that total conformity, of behavior and opinion is one possible outcome, the present study did not concentrate on this aspect of social influence. It limited its attention to minorities who experience stress, because of holding a different opinion.

Public nonconformity and private agreement (c) was also considered beyond the scope of the present study because it depicts maverick behavior. While acknowledging a possibility of behavioral nonconformity when a person does not truly hold a different opinion, the chances of such inconsistent
behavior were considered small. Any explanation of such inconsistency is beyond the purview of the present study which focuses on minority members' disagreement with the majority and their perceptions of stress, social support and coping.

The other two categories focused in the present study are discussed below. They describe problem-focused coping strategies used by opinion minorities when they disagree with the majority.

(b) Public conformity and private disagreement: A minority who conforms publicly with the majority but whose private opinion is still unchanged, may use conformity as a problem solving strategy to resolve uncertainty. Behavior that is mere public compliance is expected to change whenever the person finds it appropriate to express his/her true opinion and to attempt to modify others' opinions.

Hollander's (1960) theory provides an explanation for this type of behavior. According to his theory, individuals may publicly conform, though they may hold a different opinion privately, until they gain credibility in the group. Confidence in gained credibility may provide an impetus for them to express their true opinion and to attempt to influence the majority. Scott's (1966) activation theory can provide an alternative interpretation. At the beginning of exchange of opinions, when an individual realizes that (s)he holds a different opinion, that perception may lead to an emotional arousal. If this perception creates a low level of arousal, the person may not be
motivated enough to exert influence over the majority, and the situation may lead to behavioral conformity. If the level of stress is higher, either as an initial reaction or as a reaction to the members of the majority who continue to exert social influence, the person may be aroused enough to attempt to change the majority opinion. In other words, as the level of stress increases, conformity behavior will decrease.

(d) Public nonconformity and private disagreement: Opinion minorities may decide not to change their opinion and not to conform to the group norm. Instead, they may choose to express their true opinion and attempt to change the majority opinion to resolve uncertainty and conflict. In the context of opinion minorities, the cause of the problem lies in differences of opinions. This cause can be altered by modifying the position of either party, the minority or the majority. The coping strategy used to alter the cause of opinion differences by influencing the majority to change its opinion falls under this category of public nonconformity. This coping behavior is more likely to occur under moderate level of stress, consistent with the inverted-U relationship of stress and its behavioral consequences. In other words, when moderately aroused, opinion minorities would be motivated to influence others' opinion to conform to their own opinion.

When the arousal level increases further because the circumstances lead one to believe that problem-focused strategy will not change the situation and eliminate the problem, the person depends more on the use of emotion-focused coping. Higher level of stress and anxiety associated with
this type of a situation results in shifting the focus from problem-solving behavior to managing emotions by withdrawing. Emotion-focused coping is focused entirely on managing the emotions and anxiety reactions arising from a stressful situation.

Schuler (1985) described coping as an intentional cognitive act to analyze the perceived qualities or conditions in the environment that are associated with the stress. While problem-focused coping strategy refers to planned actions, based on such an analysis, to alter the cause of the problem; emotion-focused coping behavior, may or may not be an intentional act, and therefore is called coping behavior rather than a coping strategy.

Literature in the area of stress indicates that perception of stress can lead to withdrawal. Absenteeism and turnover are two types of withdrawal behaviors found to be linked to perceptions of stress. Several studies discussed in the following section have shown that presence of stressors leads to voluntary turnover and absenteeism in a variety of occupations (Lyons, 1979; Gupta and Beehr, 1979; Kemery, Bedeian, Mossholder and Touliatos, 1985; Parsuraman et al., 1984).

Kemery, Bedeian, Mossholder and Touliatos (1985) conducted an empirical test of a model and specific causal paths linking role stress to job satisfaction and propensity to withdraw. This was a replication of an earlier study by Bedeian and Armenakis (1981) on multiple samples to ensure that the findings of the earlier study were not spurious. The results supported
the model. It was found that role tension and emotional strain result in propensity to withdraw.

Parsuraman and Alutto (1984) developed an integrated structural model of stress and tested it by using path analysis. Among their results, some hypotheses relating to voluntary turnover also showed that felt stress contributed independently to turnover.

A stress assessment survey of personnel from Department of Defense organizations and hospitals supported a path analytic model which linked job stress and life stress to intent to quit. Intraorganizational variables indirectly affected intent to quit through perceived job stress and job satisfaction (Hendrix, Ovalle, and Troxler 1985). Extraorganizational factors indirectly affected job stress through their effect on life stress.

These and several other studies have clearly indicated that withdrawal behaviors are linked to stress generated by unpleasant conditions. There are no studies which link stress to withdrawal behavior in specific situations such as opinion minorities involved in decision making groups. This study proposed that withdrawal is related to higher levels of stress when emotion-focused coping becomes a stronger concern than problem-focused coping, and therefore represents an advance in research in this area.
In sum, it can be stated that the type of coping strategy selected:
(conformity, attempts to influence the majority, or emotion-focused coping
behavior of withdrawal) will depend upon the level of stress experienced.
Under perceptions of low stress, a minority may not be motivated enough to
change the majority opinion, but may cope with the situation by
demonstrating mere behavioral conformity as a form of problem-focused
strategy. If the event is perceived to be moderately stressful, we would
expect another problem-focused coping such as attempting to influence the
majority opinion. Further, if the event is perceived to be highly stressful,
we would see greater use of the emotion-focused coping behavior of
withdrawal. The role of social support in relation to stress process is
discussed in the following section.

Social Support

A large body of theory and research in organizational behavior in the
last forty years has dealt with the role of social support at work. Most of
this research implicitly suggests the importance of social support. Only
recently, in the past decade or so, researchers have focused their attention
directly on the role of social support.

The human relations tradition (Mayo, 1933, Roethlisberger and
Dickson, 1939, Likert, 1961, 1967) emphasized that supportive behaviors by
supervisors and colleagues can improve satisfaction, morale and productivity
provided evidence, from both experimental and cross-sectional studies, that support from co-workers and supervisors has positive psychological effects. Seashore (1954) showed that as the work group cohesiveness increased, anxiety over work decreased. Several other studies have reported similar findings (Likert, 1961; Kahn, Wolfe, Quinn, Snoek and Rosenthal, 1964; Trist and Bamforth, 1951; Miller, 1975).

On more specific terms, research in the area of social psychology has dealt with the influence of social support on nonconformity behavior (see Allen, 1975 for a literature review). Many of these studies are at best only suggestive of a minority experiencing stress. Asch (1952) found that the subjects who had partners, reported being less emotionally upset than those who faced a unanimous group. Some other studies indicated that the subjects express less anxiety in the presence of a social supporter (Allen and Levine, 1968, 1969). A possible reason suggested by the researchers is that "perhaps the presence of a supporter reduces anxiety because the participant is less concerned about possible reactions from the group." Some studies have also examined the role of causal attributions. When more than one deviate is present, the majority attributes the cause of deviant behavior to situational factors, rather than to personal factors (Asch, 1952, Newton, Allen and Wilder, 1973).

Although a very robust tradition suggests that social support can reduce organizational stress, as stated earlier, these studies did not explicitly focus on the role of social support in reducing stress. Interest in social
support as an effective moderator variable alleviating the negative effects of organizational stress has manifested itself only in the recent past (Liem and Liem, 1979; Kasl, 1978; Gore, 1978; Cohen and Wills, 1985; Kasl and Wells, 1985; Cohen and Syme, 1985). Most of these studies focus on adverse effects of job change or job loss on unemployed workers. Cobb and Kasl (1977), for instance, examined the role of social support in alleviation of stress experienced by male industrial workers due to job losses at two plants. Over a two year period, the respondents were interviewed several times about their occupational, financial, familial and health concerns. The study provided striking evidence that presence of social support reduced the level of stress, improved health and moderated the effects of stress on health.

In another study, House et al. (1979) also examined the relationship between perceived stress, social support and health outcomes. Social support from four sources was taken into account: supervisors, co-workers, spouses and a combined category of friends and relatives. The questions also distinguished between two types of functional support: instrumental and emotional. Instrumental support was expected to emanate largely from work-related sources, i.e. from supervisors and colleagues. Emotional support was expected to be related to extraorganizational sources' i.e., to spouses, family and friends. The study showed beneficial effects of social support on reducing stress and on improving health. It was also found that the participants did not distinguish between emotional and instrumental support. Among the various sources of support examined, support from co-workers showed a main effect on reducing stress, but no effect on health.
Supervisory support reduced stress, which in turn improved health. Support from spouses and friends showed small effects on both stress and health. Several moderating effects were also apparent. Total support, which was arrived at by combining support from all the structural and functional sources, indicated significant moderating effects on the relationship between stress and psychosomatic health outcomes.

A study covering a much larger sample of over 2000 persons from 23 occupational categories drawn from several sites across the country examined the role of social support in relationship to stress, both job-related stress and general psychological strain (Caplan et al., 1975). The survey used measures similar to those used by House et al. (1979), except that the sources of social support (spouse, friends and relatives) were collapsed into one category as a single source of home support. Pinneau (1975, 1976) analyzed the data and reported that the home support had main effect on job stress, while support from supervisors and co-workers showed far greater effects on a variety of stress measures. Presence of social support indicated low levels of general psychological strain. The study, however, did not report significant moderating effects of social support on work-related stress or general psychological strain. Reanalysis of the data by La Rocco and Jones (1978), who believed that the strategy used for analyzing the moderating effects of social support in the original study was flawed, showed that social support did moderate the impact of stress perceptions on psychological reactions of anxiety, depression and health complaints.
Several other studies have examined the role of social support, on perceptions of stress and on psychological and health outcomes (see House, 1981; Abdel-Halem, 1982; Cohen and Wills, 1985 for reviews). These studies provide different conceptualizations and mixed evidence on how social support relates to stress. The following section describes how social support can be conceptualized in many ways. It also discusses the reasons for selecting one form of social support for the present study, viz. peer support involving several functional aspects.

Conceptualizations of Social Support

Social support, like stress, is a concept that is used in a general sense by many people, and therefore gives rise to many conflicting definitions. These definitions differ in terms of objective indicators, dimensions and meaning (Ganster, Fusilier and Mayes, 1986). Objective indicators such as marital status, the size of the individual's social network and number of contacts can all be used to determine the amount of social support one receives. Social support can also be measured by such dimensions as who provides the support and what form it takes. Commonly examined sources of support include peers, supervisors, friends and family. Formal support can also come from professional counselors, community based support groups, trade unions, etc. These measures are often considered inadequate because they do not assess the quality of such relations. Further, in terms of meaning, social support may take the form of emotional reassurance,
information, or material aid. Such measures are functional in nature and have been called social support functions.

Cohen and Wills (1985), in a recent literature review of social support, used a distinctive framework organizing studies: a) according to structure vs. function, and b) by the degree of specificity (or globality) of the measure. By structure, they mean the existence of relationships; and by function, they mean the extent to which one's interpersonal relationships provide particular resources. Cohen and Wills (1985) suggested that global structural measures of social support show significant main effects on perception of overall well-being, but functional measures of social support are more relevant for stress buffering. They found that stress buffering occurs when support functions are most relevant to the stressors faced by the person.

Functional Social Support

Functional social support has been conceptualized in many ways by including such components as: emotional, esteem and network support (Cobb, 1976); affect, affirmation and material aid (Kahn and Antonucci, 1980); tangible, appraisal (i.e., information) and emotional support (Pinnaeu, 1975); emotional, instrumental, companionship or belongingness, and informational (Cohen and Wills, 1985). House (1981) suggested that in face of such differences over specifics, all of them should be considered as potential
sources of social support and be empirically tested. Based on a literature review, he arrived at four broad classes of supportive behaviors or acts: (1) Emotional Support, (2) Instrumental Support, (3) Appraisal Support and (4) Information Support. Cohen and Wills (1985) also expressed that although these support functions can be distinguished conceptually, it is often difficult to separate them in practice.

*Emotional Support* provides empathy, caring, trust and love. *Instrumental Support*, which can be distinguished most clearly from emotional support, at least in theory, involves instrumental behaviors that directly help the person in need, such as giving required information or instructions, or providing material help. At this point though, it is important to recognize, that a purely instrumental act also has psychological consequences. Appraisal and Informational Support are the most difficult to define and to distinguish from other forms of support. *Informational Support* provides information which a person can use to cope with challenges and problems. In contrast, Instrumental Support implies that information in itself is not useful, but that it can be used as an instrument by persons to help themselves. The difference between the two is very thin, and operational definitions often cannot capture it adequately. *Appraisal Support* involves transmission of information which is relevant to self-evaluation; what social psychologists refer to as social comparison. For example, by this definition, performance appraisals will be considered Appraisal Support when a supervisor provides information enough for the workers to decide for themselves whether they are above or below average.
A literature review of social support indicates that emotional or psychological support has been considered the most important by far (House, 1981; Abdel-Halem, 1982). Being supportive is considered almost synonymous to providing emotional or psychological support. Empirical studies have more often used self-report measures of perceived support. This method is the most appropriate and the easiest. It is easy for researchers to collect data from the same persons from whom they collect the data on stress. Alternate methods are to collect data from those who provide the support, or by direct observation of social interactions within a group. Self-report measures are also considered more appropriate because social support is likely to be effective only to the extent it is perceived.

Cohen and Wills (1985) predicted that moderating effects of social support are most likely to occur when they are with specific functional measures that match the needs elicited by stressful events. However, they noted that although the functional measures can be distinguished conceptually, in naturalistic settings they are not usually independent. Empirical studies show appreciable intercorrelations between measures of different support functions. In view of the difficulties anticipated in capturing finer distinctions among the functional classes of supportive behaviors, this study focused its attention on a functional global measure of social support.
Structural Social Support

Intra-organizational sources such as supervisors and colleagues, and extra-organizational sources such as family and friends are included among various sources of social support. Formal support can also come from professional counselors, community-based support groups, trade unions, etc. In addition to questions on sources of structural support, its existence is sometimes assessed by such measures as number of friends and relatives living nearby, frequency of visiting, frequency of church attendance and membership in any social or religious organizations. Researchers have long recognized the spillover effects of occupational stress into personal lives and vice versa. Similarly, social support, whether it emanates from intra-organizational or extra-organizational sources, is expected to interact with perception of stress. This study concentrated on one significant group of social support at work, viz. peers, because it is a relatively less researched area than the other dominant source, viz., supervisors.

Literature on vertical dyad linkage theory has dealt with issues relating supervisory support to individual employees, and the related outcomes (Graen and Cashman, 1975; Graen, Danesereyu and Minami, 1972). Some studies reported that supervisory support can be specifically more stress alleviating when compared to other sources of support (Cohen and Wills, 1985; Kasl and Wells, 1985; Cohen and Syme, 1985). In contrast to these findings, Kaufman and Beehr (1986) reported that social support from supervisors actually added to the experience of stress of employees. They
offer three possible explanations. First, it may matter whether the sources of stress and of social support are the same. For example, if a supervisor who is seen as a primary cause of stress approaches the subordinate to offer support, even his/her friendly approach may be seen as stressful. Second, supportive communication may be perceived in two ways, either that the situation is not as bad as it seems, or that it is so bad that it necessitates such a communication. Third, alternative causal interpretations are possible. For example, a proactive view of an employee seeking social support is that social support is sought to reduce stress. It may well be that in retrospective analysis, from the point of view of the employee, social support already received is perceived as adding to stress.

A recent study made a comparative analysis of social support received from peers and supervisors (Kirmayer and Lin, 1987). The results indicated that greater amount of support (with greater frequency and longer duration) was sought, from peers than from supervisors. While recognizing that other extra-organizational sources of social support such as family and friends are also significant, it was desirable to limit the scope of the study to peer support as a moderating variable, which can be manipulated and measured in a laboratory setting.

Further, among these several possible structural sources of social support, the choice of one specific source viz., peer support, can further be justified on the following grounds. Cohen and Wills (1985) argued that global structural measures provide only a very marginal advantage in adding to
the amount of explained variance. Although it may seem that the number of social connections would be strongly related to functional support, studies which have examined the issue find that additional sources of social support add very little to the explained variance. The correlations continue to be in the range of .20 to .30 (Barrera, 1981; Cohen et al., 1982; Sarason et al., 1983; Schaefer et al., 1981). Social support, for this study, was therefore be measured by using a global functional and specific structural instrument.

Literature shows that social support has been operationalized in a variety of ways (Allen, 1975; House, 1981; Cohen and Wills, 1985). An operational definition often used, and one which is considered relevant to the present study, is "presence of one person in a group who gives a response that agrees with the subject's private belief or perception." (Allen, 1975). Some studies have used one group member not answering a question (i.e. abstaining). This was expected to create perceptions of dissent and to provide support to the minority who registered a dissenting vote (Allen, 1965). Another interpretation of social support is that mere knowledge that one has social support, even though the supporter is not physically present or seen in person, can show the desired effects (Allen and Feldman, 1971). Later studies attempted to improve on methodology to maximize the impact of an absentee social supporter (Allen and Wilder, 1972). The results showed that absentee supporters did significantly reduce conformity to the majority influence.
How Does Social Support Relate to Stress?

Social support, when present, can operate in two ways (House, 1981). First, its main effects can directly influence levels of stress and employee responses on the job because it satisfies such important human needs as security, belongingness, social contact and approval. Second, support can have interaction effects by: a) presence of other people with similar opinions, thereby reducing the feeling of being a minority and b) further affiliation with the people influencing behavioral reactions. In other words, these are respective interaction effects of a) social support and minority status on perception of stress, and b) social support and perceived stress on behavioral outcomes.

The study treated social support as a moderating variable influencing the relationship between minority status and perception of stress. It placed greater importance on the examination of its role as a moderating variable than as an independent variable for the following reasons.

1. In a recent literature review of social support, Cohen and Wills (1985) examined the research evidence for both main-or-direct effect model and interaction or buffering model. They concluded that both conceptualizations of social support are correct in some respect, but each one represents a different process through which social support may affect well being. Evidence for the buffering model is found in a specific stress producing
situation. Because the present study of how minority members react to the specific stressful situation where they differ from the majority’s opinion on an issue, it was considered more appropriate to study the effects of social support as a moderating variable.

In comparison, evidence for the main effect model was found when the support measure assesses an individual’s degree of integration into a large social network. Main effect, in other words, indicates how an ongoing social support network relates directly to a sense of well-being regardless whether or not the individual is under stress.

2. Other literature on the moderating role of social support indicated mixed results. Some studies provide evidence of the moderating effects of social support in determining perceptions of stress and other physiological, psychological and behavioral outcomes (Abdel-Halem, 1982; Gre, 1978; House, McMichael, Wells, Kaplan and Landerman, 1979; House, 1981; Karsek, Triantis and Choudhry, 1980; Sandler and Lakey, 1982; Seers, McGee, Serey, and Graen, 1983; Wilcox, 1981). These studies that to some extent offer support to moderating effects of social support, but there are others which do not (Aneshensel and Stone, 1982; Blau, 1981; Ganellen and Blaney, 1984; Lin, Simeone, Ensel and Kuo, 1979; Turner, 1981). Still others report “opposite buffering effect” (Abdel-Halem, 1982; Beehr, 1976; Kaufman and Beehr, 1986; Kobasa and Pucetti, 1983). Beehr’s study (1976), for instance, reports both positive and negative evidence. It is clear from the literature that the previous research findings are far from conclusive. This implied a need to
examine further the role of social support in the relationship between minorities experiencing stress and their behavioral outcomes.

3. Cobb (1976) placed greater importance on the buffering role of social support, than the main effect, to understand interpersonal relations and their effects on stress and health. He further cautioned that one should not expect dramatic main effects from social support (p. 302). Probably, this is the reason that the use of social support as a moderator has been more popular than the use of its role in the main effect.

THE VARIABLES AND HYPOTHESES

The Variables

Review of literature on social influence, stress, coping and social support was conducted to focus upon stress experienced by opinion minorities, resulting coping behaviors and moderating effects of social support. Figure 1 represents a set of variables and their relationships selected to propose that being a minority is a stress producing experience. Perception of stress is conceptualized as an intervening variable in this process, which is influenced by two variables: 1) minority status which is an independent variable; and 2) perception of social support, which is a moderating variable that influences the relationship between minority status and perception of stress. Further, perception of stress leads to two dependent variables indicating two types of coping strategies, viz. 1) problem-focused
Figure 1

MINORITY STRESS, COPING

AND

MODERATING EFFECTS OF SOCIAL SUPPORT
coping: behavioral conformity and intentions to influence the majority opinion; and 2) emotion-focused coping: withdrawal.

Minority status, for this study, was defined in terms of opinion minority. An opinion minority is an individual in a social setting whose opinion differs from others. The definition of perception of stress, taken from the literature on stress, derives directly from the notion of a match between the person and the environment (P-E fit). It also includes the idea that stress has both functional and non-functional aspects (Schuler, 1980). Cognitive processes involved to determine whether there is a mismatch between P and E are recognized as elements of the perception. The figure is based on this definition of stress, which implies that minorities evaluate situational forces in terms of opportunities granted to them, constraints placed on them and demands made on them as they decide whether or not to express their true opinion.

Among several situational and individual factors that may affect this process of stress perception and coping, perception of social support was included as a moderator variable. As is evident from the literature, perception of social support can influence the stress process in several ways. Figure 1 represents its role as a moderator variable influencing the relationship between minority status and perception of stress. In other words, it is expected that the relationship between these two variables will differ depending on the presence or absence of perceived social support. The present study attempted to examine the role of social support, not in terms
of the extent of its availability (i.e., degrees of its presence), but only at two levels, viz. perception of presence or absence of social support. The literature on the role of social support revealed that in a specific stressful situation, like when opinion minorities are involved in making decisions, specific-structural and global-functional concepts of social support are more relevant (Cohen and Wills, 1985). Perception of social support for this study was defined in terms of perception of support from a peer, and involved several functions: emotional, instrumental, informational and belongingness/companionship support (Cohen and Wills, 1985).

Figure 1 further depicts that perceptions of stress lead to coping behaviors. Two types of coping behaviors considered relevant to the specific situation of opinion minority stress are problem-focused and emotion-focused coping. Problem-focused coping has been defined in the literature as a strategy directed at reducing stress by altering the cause of the problem. In the context of opinion minority stress, the cause of the problem lies in differences of opinions. This cause can be altered by modifying the position of either, the minority or the majority. Congruity of opinions can be attained by either the minority changing its position and conforming to the majority opinion, or by the majority changing its opinion and conforming to the minority opinion. While acknowledging that the first option, viz. total conformity, is a possible problem-solving reaction to the situation, the study focused its attention on behavioral conformity because of its greater likelihood of occurrence in a specific decision-making situation.
The second coping strategy is to alter the cause of opinion differences by influencing the majority to change its opinion. This coping behavior was more likely to occur under moderate level of stress. In other words, when moderately aroused, opinion minorities would be motivated to influence others' opinion to conform to their own opinion. The inverted-U relationship between stress and its behavioral outcomes further implies that under higher levels of stress, intentions to influence the majority opinion will diminish; and the attention will be focused more on the third coping behavior, emotion-focused coping. Emotion-focused coping, for the purpose of this study, was defined in terms of withdrawal behavior directed to reduce tension and to restore emotional balance.

Hypotheses

Figure 1 schematically depicts hypothesized relationships between minority status, perception of stress, social support and problem-focused coping (conformity, intention to influence the majority opinion) and emotion-focused coping behaviors (withdrawal). The literature on stress experienced by minorities suggests that being a minority is a stress producing experience. At the basis of minority experience lies the struggle of minority members to cope with the environment. Opinion minorities involved in making decisions in groups are confronted by environmental forces in the form of members of the majority who hold different opinions. Anticipation that these forces are likely create demands on them to change their opinion lead to minority's perceptions of stress.
Literature on opinion minorities has not, so far, directly dealt with their perceptions of stress. There is, however, considerable evidence in the literature to support the argument that opinion minorities experience pressure when they perceive themselves to be in a minority. Research in the area of social influence, conducted over last few decades, has dealt extensively with how individuals holding different opinions are pressured to conform, and when they fail to do so, are ultimately rejected. Research on conformity and deviate rejection provides ample evidence to argue that opinion deviance is not tolerated, and that individuals causing it receive considerable pressure to change their opinions (see literature reviews: Allen, 1965; Levine, 1976). Asch (1952), while discussing the results of his classic experiment on conformity, stated that the subjects reported being emotionally upset when they faced an unanimous opposing group.

A minority individual, faced with an overwhelming majority holding a different opinion, is likely to experience stress, resulting from the perception that the opinions of the group do not match the individual's beliefs. In other words, it implies that the demands of the environment would leave major motives of minority individuals unfulfilled. Essentially, there is a perceived incongruence, or a lack of fit, between the person and the environment (P-E mismatch) which is expected to lead to perceptions of stress (French et al., 1979). Most of the definitions of stress discussed earlier, which were incorporated by Schuler (1980), explicitly or implicitly acknowledged that a P-E mismatch leads to perceptions of stress.
Hall and Mansfield (1971) also defined stress perception in terms of external pressures creating an internal strain. The social forces, anticipated by opinion minorities and contradicting their beliefs, are expected to create perceptions of stress. Since an opinion minority in a decision making situation experiences kind of pressure much more than is the majority, it was hypothesized that, all other conditions being equal, the minority would experience a greater level of stress than would the opinion majority.

Hypothesis 1: Individuals in an opinion minority involved in group decision making will perceive a greater level of stress than will individuals in an opinion majority.

During the process of stress experience, desire to express views and attempts to influence the majority opinion are expected to occur most strongly in moderately stressful situations. Under conditions of low stress, individuals holding a different opinion may not be motivated enough to exert pressure over the majority, and may resort to behavioral conformity.

Under low level of stress, an opinion minority may first attempt to gain acceptance and respect by making a series of concessions within the framework of existing norms. Because of this conformity behavior, s(he) can acquire acceptance. Once accepted as a respected member of the group, s(he) may then deviate from the group norm and try to convince others to follow her/his new position.
This behavioral conformity, followed by attempts to exert social influence, was expected to occur under low levels of stress when minorities would rather compromise and plan for their strategy of social influence. Literature on conformity, reviewed earlier, revealed that the term is used more often to indicate congruence in behavior of minority and majority, rather than to indicate total opinion change (Allen, 1965). Consistent with this notion of conformity, minority individuals involved in social interaction in specific situations are not expected to change their opinion and to conform totally to the majority opinion. It is more likely that under low level of stress they are not aroused enough to express a different opinion and to confront the majority (Scott, 1966). Instead of risking confrontation, they choose to conform behaviorally. It can, therefore, be hypothesized as follows:

Hypothesis 2: Individuals in an opinion minority involved in group decision making and experiencing low level of stress will express greater intention to conform to the majority opinion than will opinion minority individuals who experience greater levels of stress.

This study further hypothesized that minorities experiencing different degrees of stress may follow different types of problem-focused coping strategies. Minority individuals experiencing greater levels of stress may decide not to conform, and may resort to the strategy which does not involve compromises or smoothing of conflict (Thomas, 1976). Minorities
under moderate level of stress are expected to be motivated enough to influence others to change their position.

Anderson's (1978) study of owner-managers of small businesses who suffered flood damages, concluded that a curvilinear relationship exists between stress perceptions and problem-focused coping behaviors. Extending these findings to opinion minorities, a similar curvilinear relationship was hypothesized between stress perceptions and intention to influence, a problem-focused coping strategy.

Other literature on stress reviewed earlier also indicated a similar inverted-U relationship between stress and performance (Selye, 1956; Scott, 1966). Figure 1 is, therefore, consistent with our understanding of stress in general. There are no studies indicating a similar curvilinear relationship between minority stress and resulting behavior to resolve their specific stressful situation. This study conceptualized a curvilinear (or inverted-U) function between stress experienced by opinion minorities and behavioral decisions is indicated by different coping behaviors at different levels of stress: behavioral conformity, intentions to influence the majority opinion, and withdrawal (see Figure 2). In other words, we expected greater attempts to influence the majority opinion when the situation was moderately stressful than at lower or higher levels of stress.
**Figure 2**

Relationship between perceived stress and coping behaviors.
Hypothesis 3: Individuals in an opinion minority involved in group decision making and experiencing a moderate level of stress will express greater intention to influence the majority opinion than will opinion minority individuals experiencing higher or lower levels of stress.

When the level of arousal is further exacerbated, the minority individuals may experience a high level of stress. This stress may arise from the minority members perceiving that they are disliked, and are considered unreasonable, incompetent and unappealing. Moscovici and Mugny (1983) described the social context of tension and conflict and how the process of influence operates under such circumstances. Under high levels of stress, minorities are expected to focus their attention on their emotions, and reduce their attempts to influence the majority, and ultimately decide to withdraw. Whether some of them would succumb to the pressures and ultimately decide to conform, instead of withdrawing, is not clear from the available evidence in the literature. Perhaps an answer to this question lies in individual differences in resistance and sociability, and in cognitive changes which occur through the process. The present study did not include these variables, and therefore did not attempt any predictions about individual behavior at this point in the process. Within the framework of the current study, it hypothesizes a negative linear relationship between perceived stress and conformity.
The literature reviewed earlier, however, clearly indicated that both problem-focused and emotion-focused coping strategies are used by individuals experiencing stress (Folkman and Lazarus, 1980; Pearlin and Schooler, 1980). Further, Anderson's (1978) study on owner-managers of small businesses dealing with stress resulting from damages due to a natural disaster, revealed a positive linear relationship between stress and emotion-focused coping behavior, and suggested greater use of emotion-focused coping under higher levels of stress. Based on the research support, we can, therefore, propose a positive linear relationship between perception of stress and emotion-focused coping strategy which aims at reducing emotional distress by use of withdrawal (see Figure 2).

Studies linking perceptions of stress to withdrawal, discussed earlier, indicated that high levels of stress which is often called distress, can lead to intent to quit, absenteeism and turnover (Gupta and Beehr, 1979; Hendrix, et al., 1985; Kemery et al., 1985; Lyons, 1971; Parsuraman and Alutto, 1984). No studies have so far been reported on withdrawal behavior in reaction to stress in a small group setting. Some research on the role of social support in reducing stress have indicated that individuals under high level of anxiety do prefer to be alone rather than to be with others. Sarnoff and Zimbardo (1961) showed that some participants in an experiment in which they anticipated an electric shock, and were under very high levels of arousal and anxiety, showed a preference for waiting alone rather than waiting with others before participating in the experiment. This avoidance behavior is consistent with this model which hypothesizes greater use of emotion-focused
behavior of withdrawal under higher levels of stress. Based on the available research evidence, therefore, it was hypothesized that the higher the level of distress experienced, the greater will be the propensity to withdraw.

Hypothesis 4: The greater the level of stress experienced by opinion minority individuals involved in group decision making, the greater will be their tendency to use emotion-focused behavior of withdrawal.

Further, according to Figure 1, social support as a situational variable is seen as exerting moderating (interactive) effects on the stress process. Research evidence on the effects of social support on stress has been reported on animals as well as on humans. It generally supports the hypothesis that humans, like animals, show reduced levels of stress when provided with social support (House, 1981).

Availability of social support can lead to dramatic reduction in conformity behavior (Asch, 1951). In his classic research on conformity, Asch showed that a large number of participants conformed to a clearly incorrect view propagated by the confederates in the majority. He also showed that the presence of a single person giving the correct answer, in an otherwise erroneous group, encouraged the participants to resist the group pressure. Conformity to the group reduced dramatically, from thirty-three percent to
five percent. The presence of a social supporter to reduce conformity was strikingly effective.

Given an opportunity, individuals in stress inducing experience actually seek social support (Schachter, 1959). Schachter reported that when participants had a greater anticipation of painful electric shock which they were to receive in an experiment, they showed greater tendency to affiliate with others while waiting to participate in the experiment.

Several other studies discussed earlier also indicated beneficial effects of social support to reduce occupational stress (Cobb and Kasl, 1977; House et al., 1979; La Rocco, 1980). Considerable research evidence, from laboratory and field settings, indicates that, in general, presence of social support buffers the impact of stress due to role conflict and role ambiguity (Abdel-Halem, 1982; House, 1981; Cohen and Wills, 1985); stressors commonly experienced by opinion minorities. These stressors are caused by such socio-psychological factors as intergroup conflict, lack of cohesiveness, lack of power, lack of role models and mentoring relationships. Presence of social support is expected to reduce the impact of some of these stressors experienced by opinion minorities. It was, therefore hypothesized that the presence of social support operates in a similar manner to help opinion minorities alleviate their perceptions of stress.

Thus social support may moderate the effects of such potentially stressful situations such as minority status by causing people to perceive the
situation as less threatening. No research has been reported on the specific relationship between minority feeling due to opinion differences and their resulting perceptions of stress and social support. Based on other findings of studies on social support it was hypothesized that it operates in a similar manner to alleviate perception of stress.

Hypothesis 5: Individuals in an opinion minority involved in group decision making who experience presence of social support will report a lower level of stress than will those minority individuals who experience no social support.

This chapter has achieved three major objectives. First, an extensive review of literature on social influence, stress and coping, and social support helped focus on opinion minorities experiencing stress in small decision making groups. Second, literature reviewed on other organizational minorities, such as racial-ethnic minorities and women in minority, was used to build a case for stress experienced by opinion minorities. Finally, based on the review of the literature, the chapter concluded with the formulation of testable hypotheses.

Chapter III outlines the research design and the methodology used in the study. Further it describes the process of development of research materials, measures and issues relating to data collection.
CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

This chapter describes the research design and the methodology used for the study. It provides information on the experimental design, participant characteristics, and procedure used for developing research materials and for data collection. It outlines a plan for analyzing the data. Finally, it describes psychometric properties of the scales used for the study.

Design:

This was a laboratory study in which two conditions were manipulated: minority status (minority vs. majority) and social support (social support vs. no social support). The participants were given a case of academic misconduct to read and were asked to select one of the two opinion options: severe or lenient punishment (S or L). Depending on their chosen option, and on the basis of random assignment, half of each group was assigned to minority and the other half to majority (Mn or Mj). In other words, the participants choosing either of the two options were further
randomly assigned to minority and majority conditions, resulting in four conditions: (S:Mn, S:Mj, L:Mn, L:Mj). Social support was operationalized in a similar manner by further randomly assigning each of these four groups to two conditions of social support: no social support vs. social support, resulting in 8 cells.

Participants:

Undergraduate business majors enrolled in an introductory course in organizational behavior at a midwestern university were asked to participate in the experiment for partial course credit. Participation was voluntary, as the students were given the option to earn the credit either by participating in research or by completing another written assignment. A total of 230 undergraduate business students participated in the experiments. Of these 5% visibly belonged to racial-ethnic minorities or were from foreign countries. Data provided by these twelve individuals was excluded from further analyses. Literature on double minorities makes a similar distinction between those who are visibly different from the majority and those who are not (Maass and Clark, 1984). It is difficult to exclude minority individuals who resemble the majority in appearance but who are in minority because of they belong to a different religious background, social class or nationality. Following the trend used by other researchers, it was decided that those who could visibly be classified as racial-ethnic minorities would be excluded from the analyses. The effective participants were 218: 120 males (55%) and 98 (45%) females.
Development of Research Materials:

A task similar to a jury decision was developed to determine the level of experienced stress and desire to influence others in the group. Many studies in social psychology have used similar tasks where participants decide the fate of a delinquent juvenile. A situation involving a case of academic misconduct was selected for the task (see Appendix A). It was expected to capture students' interest and was, therefore, likely to be more value-judgmental and ego-involving than some other mundane task. The case was made as realistic as possible. It stated: "A case of academic misconduct was reported recently at the School of Business. The case will shortly be placed before the university committee which deals with academic misconduct. The School of Business is interested in your reactions to the case. Your stand on this case will have a bearing on the school's policy to deal the with similar cases in the future."

The case further asked the reader to assume the role of a member on committee dealing with academic misconduct. The participants were reminded of the duties of a committee member. The duties included ensuring that not only was the students' right to due process not violated but also, that the academic integrity of the university was maintained.

The case described misdemeanor charges of cheating in an examination. The student was charged with copying from a crib sheet during
the course of the examination. A common practice by instructors who teach this course was to allow students to bring one sheet of paper with formulas that are too cumbersome to memorize, but that are required to solve decisional problems. The students were also instructed not to scribble anything other than formulas on this sheet. Cheating from a crib sheet was considered a serious violation of the rules. The case included additional information such as the instructor’s written report recommending suspension, and the student’s written statement of denial of guilt based on his misunderstanding the instructions about the crib sheet.

The student was described as a first time offender and an average academic performer. At the end of the narrative, the reader was asked to choose between two options: a severe punishment of suspension from the school for two weeks and an entry in the student’s permanent record, or a relatively lenient one of an oral warning. A pilot test was conducted to ensure a reasonable spread of responses between two options. Fifty-two students were asked to read the case and give their opinions. The test resulted in 75% in favor of the lenient option and 25% in favor of the severe option. At this stage the nature of data collection was purely exploratory. Suggestions from participants about other possible courses of action were welcomed. On the basis of this first test the case was modified in two respects: one, a few words were changed so that the guilt of the charged was not under question, and only the degree of severity of punishment was the issue; and two, the severe option was modified to appear more reasonable.
The modified case was given to another group of 56 undergraduate students. Their participation in the development of research materials involved two parts. In the first part, they were asked to read the case, select one of the two options and state three reasons supporting their choice. In the second part, they were formed into groups of 4 – 5 to discuss the case for 15 minutes. Discussions of ten such groups were audiotaped. Each participant was asked to briefly introduce herself/himself, and state the position taken on the case and also the reasons supporting the position. Differences in opinions often led to lively discussions. There was no attempt made at this stage to control the major variable of interest, viz. opinion majority/opinion minority. The discussions were aimed mainly at examining the viability of the case as a controversial issue which can create a sense of ego-involvement. The group discussions were analyzed for their content by listing reasons in support of each position (severe and lenient punishment), and by examining how frequently each of these reasons was listed. A list of arguments used in favor of each position is enclosed (Appendix C). The three most often stated arguments were selected as support materials for the next phase of research material development, viz. videotaping the group discussions. The videotapes were used to standardize the experimental stimulus across individual participants during the main data collection.

Three standard key arguments in favor of each position (minority and majority), and drawn from the content analysis were provided to the actors. The rest of the discussion was allowed to be spontaneous around these
arguments. The actors could see these reasons listed on posters as they discussed the case, but they were asked not to mention the posters directly. This was done to ensure that while the most frequently used arguments in favor of each position appeared in the discussion, the discussion continued to be spontaneous.

Four groups of students (i.e., 8 sessions) were videotaped. Each group of actors was asked to discuss the case in two sessions. In the first session, four members of the group assumed the lenient position, and one person was asked to argue in favor of the severe position (4L:1S). In the second session, they were asked to reverse their roles. The four members of the majority were asked to argue in favor of the severe position, and the same minority member in favor of the lenient position (4S:1L). Each session was videotaped. The participants were also asked not to refer to their discussion in the first session while taping the second session, since the two tapes would be watched by different sets of students. Each session lasted approximately 15 minutes. Out of the four groups (8 sessions) videotaped, one group was selected for further data collection. The selection was based on the criteria of its effectiveness for its intended use, quality of discussion and quality of filming.

The participants in the main study were expected to identify with the actors in the videotape for three reasons. First, their earlier commitment to the chosen option should have led them to identify with a person expressing a similar opinion and providing a rationale to substantiate it. Second, the
questionnaire included instructions asking them to imagine themselves as part of the group and to answer the questions following. Third, the actors in the roles were chosen to resemble the viewers in important demographic variables such as age, educational level, use of language, etc. In other words, they were selected from a group of students similar to the research participants. It was important to restrict the choice of actors to one gender so that the film became a common, standard stimulus to all the participants. Male students were chosen as actors. The participants in the study included both male and female students. One concern in standardizing the stimulus in this manner was that identification with the actors could be stronger by male participants than by female participants. It was, therefore, decided to examine the data for sex effect. If the data analysis revealed sex differences on the dependent variables, then the study could be restricted to only male participants.

Procedure:

The laboratory experiment was conducted in three phases as described below. The participants were given the following instructions:

"Your participation in this experiment involves three distinct phases. In the first phase, you will be given 5 minutes to read a one page case. The case deals with cheating in an examination. The School of Business is interested in your reactions to the case. Assume that you are in a position to influence the decision. As a person who can influence the decision, you
should ensure that the student charged with cheating on the examination has a right to a due process and also that the academic integrity of the university is maintained. Please read the case and choose one of the two options listed below. Please also list three reasons in support of the judgement of your choice."

in the second phase of the experiment, you will watch a videofilm of group of students similar to yourself discussing the same case for 15 minutes. Please watch the film carefully so that you can answer the questionnaire which will be given to you in the third phase of the experiment. The questionnaire has several sections and each section is explained at its beginning."

Phase 1: The participants were given the case to read, and were asked to record their judgement. They were also asked to provide some biographic information to facilitate identifying them correctly for the next phase and to assign them appropriately to experimental conditions.

Phase 2: The cases were collected and sorted based on the participants' choice of judgement: severe or lenient punishment. The participants, in both the severe and lenient groups, were randomly assigned to one of the two experimental conditions: minority or majority (Table 1). While assigning the participants to these conditions, care was exercised to ensure that the effects due to some participants belonging to double minorities
<table>
<thead>
<tr>
<th>ASSIGNMENT</th>
<th>PHASE 1</th>
<th>PHASE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>Exptl. Cond.-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Lenient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Severe</td>
<td></td>
</tr>
<tr>
<td>MINORITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lenient</td>
<td>Exptl. Cond.-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Severe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Lenient</td>
<td></td>
</tr>
<tr>
<td>MAJORITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>Exptl. Cond.-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Severe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Lenient</td>
<td></td>
</tr>
<tr>
<td>Lenient</td>
<td>Exptl. Cond.-4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Lenient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Severe</td>
<td></td>
</tr>
</tbody>
</table>
were controlled. Names of those who visibly belonged to racial minority groups were noted so that data provided by them could be discarded later. Racial minority participants were small in number (n = 12), and their responses were discarded while coding the data.

Minority Conditions:

Experimental Condition 1 involved watching a videotaped discussion among five men: four favoring lenient punishment and one favoring the severe punishment option (Videotape A: 4L:1S). Half of all the participants in favor of severe punishment were randomly selected and assigned to this condition.

Experimental Condition 2 involved the same group of actors with the reverse choice of options: i.e., four for severe punishment and one for lenient (Videotape B: 4S:1L). Half of all the participants in favor of lenient punishment were randomly selected and assigned to this condition.

Majority Conditions:

Experimental Condition 3 involved watching the same videotaped discussion as in Condition 2, i.e., four for severe and one for lenient punishment (Videotape B:4S:1L); but the participants assigned to this
condition who favored severe punishment in Phase 1, (i.e., the other half of the randomly selected group assigned to Experimental Condition 1).

Experimental Condition 4 involved watching the videotaped discussion used in Condition 1, i.e., four for lenient and one for severe punishment (Videotape A: 4L:1S), by the remaining half of all the participants who opted for the lenient form of punishment.

When being assigned to a group to watch the videotaped discussions, the participants were not made aware of the differences in experimental conditions. The videotaped discussion came abruptly to an end before the actors reached any conclusion. This abrupt end to the film, before any decision was reached; facilitated the next stage of the experiment: operationalizing social support.

Phase 3: The participants were asked to answer a questionnaire. This questionnaire began by creating a scenario in which the remaining story was narrated (Appendix B). Eight different scenarios indicating how the voting finally occurred, after the film abruptly ended, were narrated. Social support was manipulated at this point by randomly assigning the participants to eight different scenarios (see Figure 3). These eight scenarios indicating eight experimental conditions of "no social support" and "social support" are enclosed (Appendix B).
MINORITY/MAJORITY

SOCIAL SUPPORT

8 SCENARIOS & QUESTIONS

SCENARIO NUMBER

NO SOCIAL SUPPORT (4L.1S) → 1

MINORITY (4L : 1S) → SOCIAL SUPPORT (3L.2S) → 2

MINORITY (4S : 1L) → NO SOCIAL SUPPORT (4S.1L) → 8

MAJORITY (4S : 1L) → SOCIAL SUPPORT (5S) → 4

MINORITY (4S : 1L) → NO SOCIAL SUPPORT (4S.1L) → 3

MAJORITY (4L : 1S) → SOCIAL SUPPORT (3S.2L) → 5

MINORITY (4L : 1S) → NO SOCIAL SUPPORT (4L.1S) → 7

MAJORITY (5L) → SOCIAL SUPPORT (5L) → 6

PHASE 1

Read the case

Choose between severe or lenient punishment

PHASE 2

Watch 1 of the 2 videofilms

PHASE 3

Read 1 of the 8 scenarios

Answer questions on:
- Minority/ Majority identification
- Perceptions of Stress, Social Support and Coping Behaviors

Figure 3

TREE OF EXPERIMENTAL PHASES
Operationalization of Social Support: The two variables, minority status and social support, were expected to be correlated. This posed a challenge to isolate them as much as possible to judge their independent effects in a complex social environment like a group discussion. Social support was varied at two levels for each of the two minority conditions: minority status and majority status.

1. Minority Participants: First, under the condition of no social support, the story described the committee members voting as expected, or in other words, consistent with the plan described in Table 2. Second, social support, was operationalized by indicating that one of the four members in the majority changed his mind and voted in favor of the opinion held by the minority person (or in other words, consistent with the participant's chosen option).

2. Majority Participants: Participants assigned to this condition were expected to experience social support by being part of the majority itself. In other words, majority status and perception of social support were expected to be positively correlated. Social support was, therefore, operationalized in the same direction as for minority participants, which may be described better as: a) no change in social support (i.e., voting consistent with the plan in Table 2), and b) greater social support, by having all the five persons voting in favor of the position held by the participant (see Table 2). To maintain consistency in terms, the two conditions were labeled: a) no social support, and b) social support.
### TABLE 2

**ASSIGNMENT OF PARTICIPANTS TO CONDITIONS OF SOCIAL SUPPORT**

<table>
<thead>
<tr>
<th>Minority/Majority</th>
<th>Social Support</th>
<th>Participant’s Initial Choice</th>
<th>Scenario Description/(Number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Support</td>
<td></td>
<td>Severe 4 Lenient:1 Severe (1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lenient 4 Severe:1 Lenient (3)</td>
<td></td>
</tr>
<tr>
<td>Minority</td>
<td></td>
<td>Severe 3 Lenient:2 Severe (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Support</td>
<td>Lenient 3 Severe:2 Lenient (5)</td>
<td></td>
</tr>
<tr>
<td>No Support</td>
<td></td>
<td>Severe 4 Severe:1 Lenient (8)</td>
<td></td>
</tr>
<tr>
<td>Majority</td>
<td></td>
<td>Severe 5 Severe (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Support</td>
<td>Lenient 5 Lenient (6)</td>
<td></td>
</tr>
</tbody>
</table>
In sum, eight scenarios to manipulate social support were written for eight experimental conditions (see Figure 3). Social support was varied at two levels for each combination of severe/lentient, and minority/majority, resulting in a total of eight experimental conditions \( (2 \times 2 \times 2) \). The scenarios are enclosed in Appendix B.

The next part of the questionnaire included a manipulation check on the participants' identification with the minority or the majority condition. The first question asked them to mention the person in the film with whom they identified the most. This question served as a manipulation check on the operationalization of minority status. It read as follows:

"...... please write the name and brief description of the person with whom you agreed the most. Imagine that you are a member of the group, in place of this person............." This was followed by questions regarding their perceptions of stress, social support and behaviors (problem-focused coping: conformity and attempts to influence the majority, and emotion-focused coping: withdrawal). Questions on social support enabled to check whether or not the participants assigned to the two conditions of social support responded in a manner consistent with the research plan.
Data Analysis:

The research plan involved four major categories of statistical analyses: preliminary analyses, manipulation checks, hypothesis tests, and computation of psychometric properties of the scales. Following section describes the plan for data analyses under these four categories.

1) Preliminary Analyses: Since so far there has been no research on stress perceptions of opinion minorities, this study was based on extrapolations made from the literature on two minority groups: racial-ethnic and women as minorities. These two minority groups were not the focus of the study. The focus was on opinion minority. Two strategies were planned to avoid any confounding effects due to any of the participants being double minority. One, following the trend used by other researchers, it was decided to exclude the data provided by the participants who visibly belonged to racial-ethnic minorities or foreign countries from further analyses. Two, it was decided to include women participants and examine the data for sex effect. In case of finding a sex effect, the study could have been restricted to any one gender.

Another distinction was made between individuals who selected the lenient (L) punishment, and those selected the severe (S) punishment. In the Phase 1 of the experiment the participants were allowed to make a choice of punishment: lenient or severe. Beyond this stage the participants
were randomly assigned to two experimental conditions: minority vs. majority. Since the participants were not randomly assigned to experimental conditions at the beginning, it was considered essential to examine similarities and differences between the two subsets. The choice of punishment, as a variable, was not seen as theoretically significant to the study. It was decided to conduct separate analyses in case of finding nonsignificant differences. The two subsets significantly differed in their perception of social support. The data was, therefore, aggregated for all the hypotheses tests, except one, i.e. Hypothesis 5, which involved moderating effects of social support.

2) Manipulation checks were planned for the two experimental variables manipulated in the study: minority status (minority vs. majority) and social support (no social support vs. social support).

Minority Status: The first question in the questionnaire asked the participants to mention the name and give a brief description of the person with whom they identified the most. This was to determine whether the participants identified with the minority individual or with the majority. Chi-square test was selected to analyze resulting dichotomous data. Chi-square test is considered appropriate to examine effects of manipulation of experimental treatment on a randomly assigned participants. Since the experimental design involved the use of two videotapes to counterbalance experimental conditions (Videotape A: four in favor of lenient and one for severe punishment, and Videotape B: four in favor of severe and one for
lenient punishment), Chi-square tests were planned for the two subsets of the participants to ensure that the experimental manipulation was achieved effectively in both the videotapes.

Social Support: The moderating variable, perceived social support, was manipulated by using eight scenarios, one for each of the eight experimental conditions (see Figure 3). The effect of manipulation was measured by a 20-item scale of perceived social support (Appendix D). The measure resulted in a range of scores.

Three statistical tests were planned to examine effectiveness of the manipulation. One, a chi-square test was planned by categorizing the data into two groups based on the mean value of perceived social support. The test scores on Perceived Social Support were divided into two categories based on the mean value. Then frequency distributions were obtained for: 8 scenarios x 2 levels perceived social support. Two, regression analysis was conducted to determine the extent of dependence of perception of social support (continuous variable) on the manipulation of social support by use of scenarios (categorized variable).

Comparisons among groups receiving different experimental treatments can also be conducted by Analysis of Variance (ANOVA). One of the major assumptions for ANOVA using SAS is that the data is balanced (that is, the data has equal number of observations for every combination of classification categories). Use of SAS-ANOVA for unbalanced data can result in incorrect
results including negative values for sums of squares. The data collected for the study was not balanced because the experimental procedure employed for the present study involved choosing either severe or lenient punishment in the first phase. Among several statistical programs used to handle analyses of variance of unbalanced data, SAS-GLM was chosen to conduct the test.

Three, paired comparisons of subgroups under different experimental treatments of social support were planned for more detailed information on significant differences between means by using Dunn-Sidak procedure for nonorthogonal contrasts.

3) **Hypothesis tests**: Hypotheses developed in the previous chapter were tested by using t-tests, correlations and hierarchical regression analyses. The following narrative describes the tests planned for each of the hypotheses.

The first hypothesis, which compares stress perceptions of individuals in opinion minority to those in the opinion majority, was tested by using a t-test of simple comparison between mean levels of perceived stress of the minority and of the majority members.

The second hypothesis contends a negative linear relationship between stress experienced by opinion minority individuals and their intention to conform to the majority. The hypothesis was tested by computing a linear
correlation between perceived stress and intended conformity of the minority.

The third hypothesis, based on a curvilinear relationship between perceived stress and intention to influence expressed by opinion minority, involved more rigorous testing. Regression analysis with a quadratic equation was formed to test the hypothesized curvilinearity. The model used can be described as:

\[ \text{Intention to influence} = a + b_1 \text{(Stress)} + b_2 \text{(Stress} \times \text{Stress)} \]

In addition to regression analysis, scatter plots of the data were planned; which, besides providing visual impressions often lead to greater insight into the nature of the data.

The fourth hypothesis related to a positive linear relationship between perceived stress and an emotion-focused coping behavior, withdrawal. This hypothesis was tested by examining the significance of correlation between perceived stress and intended withdrawal of opinion minority.

The fifth hypothesis, relating to moderating effects of perceived social support on the link between the experience of being an opinion minority and perception of stress, was examined by using two sets of hierarchical
regression models. First set of hierarchical regression models were planned to examine the magnitude of variance in the dependent variable, perceived stress, that could be explained by two predictor variables and their interaction term: viz. opting for severe/l lenient punishment and, perceived social support. This set of analyses were conducted for the minority subset only because the hypothesis relates specifically to opinion minorities. Second set of hierarchical regression models included perceived stress as a dependent variable, and minority status and perceived social support as experimental variables. The interaction between the two experimental variables was entered at the last step in the model to determine the degree to which stress could be alleviated by providing social support to opinion minority.

4) Psychometric properties of the scales: The scales used to measure the variables in the study ranged from published, well-established measures to measures newly developed for the present study. The statistics planned to examine psychometric properties of the scales included item-analyses, intercorrelations among the scales and factor analyses for newly developed scales. The following section describes the scales and the results of these analyses. The results of hypotheses tests and manipulation checks are presented in the next chapter.
Scales: Description and Psychometric Properties

The following scales were used to measure the independent, the moderator and the dependent variables.

1. **Perceived Stress**: A sub-scale measuring tension-anxiety dimension from the Profile of Mood States (POMS) was selected to measure perceived stress (Appendix D). POMS reflects a measure of six primary mood states derived after repeated factor analyses (McNair, Lorr and Droppleman, 1971). It is considered a well developed response-oriented measure of stress (Derogatis, in Handbook of Stress: Theoretical and Clinical Aspects, 1982). The sub-scale on tension-anxiety contains nine adjectives pertaining to heightened musculo-skeletal tension (e.g., Tense, On Edge), psychological manifestation of stress (e.g. Restless, Shaky) and general discomfort. The reliability coefficient for the sub-scale was computed (Chronbach's Alpha) to be .86 (Table 3). A more detailed item analysis revealed the range of item-total correlation .51 to .67.

2. **Perceived Social Support**: The scale was developed by modifying 20 items from Eisenberger et al's (1986) Survey of Perceived Organizational Support (SPOS). Perceived organizational support is defined as global beliefs concerning the extent to which the organization cares about the well-being of its members and values their contribution. Perception of organizational support is influenced by various aspects of members' treatment; and their interpretations of others' motives; and their needs for praise, approval,
TABLE 3

PSYCHOMETRIC PROPERTIES AND INTERCORRELATIONS OF THE SCALES

<table>
<thead>
<tr>
<th></th>
<th>SOCIAL SUPPORT</th>
<th>INTENTION TO INFLUENCE</th>
<th>INTENTION TO CONFORM</th>
<th>INTENTION TO WITHDRAW</th>
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</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>17.77</td>
<td>5.95</td>
<td>0.03</td>
<td>0.06</td>
</tr>
<tr>
<td>STRESS</td>
<td>63.78</td>
<td>13.97</td>
<td>-0.03</td>
<td>0.20***</td>
</tr>
<tr>
<td>SOCIAL SUPPORT</td>
<td>26.94</td>
<td>3.53</td>
<td>-0.17**</td>
<td>-0.04</td>
</tr>
<tr>
<td>INTENTION TO INFLUENCE</td>
<td>8.38</td>
<td>3.00</td>
<td>0.32***</td>
<td></td>
</tr>
<tr>
<td>INTENTION TO CONFORM</td>
<td>9.33</td>
<td>2.97</td>
<td>0.81</td>
<td></td>
</tr>
</tbody>
</table>

** p < .05  *** p < .01
material aid and information. These facets of organizational support are very similar to several definitions of social support discussed earlier. Twenty of the total thirty-six items from Survey of Perceived Organizational Support, relating to these facets of social support, were selected and modified to suit group instead of the organization, as a level of analysis (Appendix D). The statements excluded pertained to salary, job performance, promotional opportunities and long term career goals. These statements were excluded because they were considered irrelevant to the situation involving group discussion on a specific issue.

The selected items were slightly modified so that they refer to social support derived from a decision making group instead of from an organization. These items reflect evaluative judgements attributed to the group in the videofilm involved in decision making. The participants were asked to imagine themselves to be part of the group and to respond to the items. The items measured the respondent's needs for praise, approval, material aid and information, as well as their perception of others' concern about their well-being, and consideration of their opinions, goals and values. Some representative items are cited in the following section to show how the items from the Survey of Perceived Organizational Support (SPOS) were modified to suit the present study.

**Performance:**

1) Help is available from the organization when I have a problem. (SPOS)

- Help is available from the group when the members need it. (Item 10)
Concern about well-being:

1) If given the opportunity the organization will take advantage of me. (SPOS)
    - If given the opportunity the members of the group will take advantage of me. (Item 19)

2) The organization shows very little concern for me. (SPOS)
    - The group would show very little concern for me. (Item 22)

Consideration for goals and opinions:

1) The organization strongly considers my goals and values. (SPOS)
    - The group would be sensitive to my values. (Item 13)

2) The organization cares about my opinions. (SPOS)
    - The group would care about my opinions. (Item 23)

Need for approval:

1) The organization takes pride in my accomplishment at work. (SPOS)
    - The group would take pride in my accomplishment as a member of this committee. (Item 28)

Material aid and information:

1) The organization is willing to extend itself in order to help me perform my job to the best of my ability. (SPOS)
    - The group is willing to extend itself in order to help me perform my job. (SPOS)
In light of the modifications made from the earlier measure of perceived support, the reliability of the new scale was reassessed. The reliability (Chronbach's Alpha) of the modified instrument titled "Perceived Social Support" was found to be .94 (Table 3). To control for an agreement bias, 9 out of 20 statements are negatively worded, and require reverse scoring. The item analysis showed item-total correlations ranging from .52 to .76, indicative of reasonably high internal consistency.

3. **Coping Behaviors**: Three coping behaviors measured by three scales. These scales were developed specifically for the present study (Appendix D). The first two scales, Intention to Influence (7 items: * 30 to *36) and Intention to Conform (5 items: * 37 to * 41) measure problem-focused coping behaviors. The third scale, Intention to Withdraw (4 items: * 42 to * 45) measures an emotion-focused coping behavior of withdrawal. Following items are cited as examples.

* **Intention to influence others' opinions:**
  Get together with the group members and discuss the issue so that I can try to change their opinion (Item 30).
  Explain to others what I really feel about the issue being discussed (Item 31).

* **Intention to conform:**
  Agree with others so that I can avoid an unpleasant situation (item 37).
  Vote in favor of the majority opinion (item 41).
intention to withdraw:

Avoid being in a similar situation, if I can (Item 42).

Do my best to get out of the situation gracefully (Item 45).

Finally, reliability and item analyses were performed on these instruments (Table 3). More detailed item analyses revealed that by dropping one item each from Intention to Influence and Intention to Conform, reliability coefficients would slightly improve. By dropping item * 36 which read, "Try to communicate more effectively," the reliability coefficient for the subscale on Intention to Influence would improve from .6917 to .6973. Similarly, by dropping item * 38 which related to behavioral conformity and read, "Agree with others and bide for an appropriate time to express my true feelings," the reliability coefficient for Intention to Conform would marginally improve from .7857 to .7880. Considering that the magnitude of improvement is very small, the items can be retained for their contribution to the face validity of the instruments.

Intercorrelations among the subscales are reported in Table 3. Intention to Conform was significantly correlated with Intention to Withdraw \((r = .32, p < .0001)\), with both depicting escapist strategies which may be termed as "Intention not to Influence." The third coping behavior, Intention to Influence, was found to be negatively correlated with the other two. The correlation between Intention to Influence and intention to Conform was statistically significant \((r = -.17, p < .05)\), whereas the correlation
between Intention to Influence and Intention to Withdraw was not \( r = .04, \ p > .54 \). These results indicate that there is substantial overlap in the variance of coping behaviors measured by these three subscales, yet they tap different underlying factors.

Factor analysis using varimax rotation resulted in a clear three factor structure. The factor loadings were generally high for the appropriate factor and low for the other two factors (Table 4). Tucker and Lewis reliability coefficient was .84, indicating that the convergence criterion was satisfied. Table 4 also reports factor congruency coefficients. The congruency coefficients are high for each of the factors. The three factors can be labeled as "Intention to Conform" (Factor 1), "Intention to Withdraw" (Factor 2), and "Intention to influence" (Factor 3). This structure is consistent with the theoretical explanation of coping behaviors.

In summary, this chapter outlined the research design and the methodology adopted to conduct the study. It described the characteristics of the participants. It also described the procedures used to develop the research material and to collect the data. The chapter further provided information on the plan for data analyses, and psychometric properties of the scales used. The following chapter, Chapter IV, will report the results of the data analyses.
### TABLE 4

**Factor Loadings from Varimax Rotation for Coping Behaviors**

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>FACTOR1</th>
<th>FACTOR2</th>
<th>FACTOR3</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF 30</td>
<td>-0.23</td>
<td>0.04</td>
<td>0.46</td>
</tr>
<tr>
<td>INF 31</td>
<td>0.01</td>
<td>0.12</td>
<td>0.36</td>
</tr>
<tr>
<td>INF 32</td>
<td>-0.02</td>
<td>-0.03</td>
<td>0.54</td>
</tr>
<tr>
<td>INF 33</td>
<td>-0.12</td>
<td>-0.13</td>
<td>0.37</td>
</tr>
<tr>
<td>INF 34</td>
<td>0.05</td>
<td>-0.02</td>
<td>0.57</td>
</tr>
<tr>
<td>INF 35</td>
<td>0.01</td>
<td>0.06</td>
<td>0.81</td>
</tr>
<tr>
<td>INF 36</td>
<td>-0.15</td>
<td>-0.06</td>
<td>0.33</td>
</tr>
<tr>
<td>CNF 37</td>
<td>0.54</td>
<td>0.10</td>
<td>-0.09</td>
</tr>
<tr>
<td>CNF 38</td>
<td>0.39</td>
<td>0.19</td>
<td>-0.02</td>
</tr>
<tr>
<td>CNF 39</td>
<td>0.51</td>
<td>0.13</td>
<td>-0.13</td>
</tr>
<tr>
<td>CNF 40</td>
<td>0.86</td>
<td>0.09</td>
<td>-0.05</td>
</tr>
<tr>
<td>CNF 41</td>
<td>0.85</td>
<td>0.00</td>
<td>-0.06</td>
</tr>
<tr>
<td>WITH 42</td>
<td>0.09</td>
<td>0.80</td>
<td>0.03</td>
</tr>
<tr>
<td>WITH 43</td>
<td>0.08</td>
<td>0.93</td>
<td>-0.02</td>
</tr>
<tr>
<td>WITH 44</td>
<td>0.16</td>
<td>0.59</td>
<td>0.01</td>
</tr>
<tr>
<td>WITH 45</td>
<td>0.41</td>
<td>0.49</td>
<td>-0.05</td>
</tr>
<tr>
<td>CONGRUENCY COEFFICIENTS</td>
<td>0.92</td>
<td>0.86</td>
<td>0.77</td>
</tr>
</tbody>
</table>

*Legend: INF = item relates to Intention to Influence  
CNF = item relates to Intention to Conform  
WITH = item relates to Intention to Withdraw*
CHAPTER IV

RESULTS

The data analyses are presented in two sections. The first section on preliminary analyses describes significant similarities and differences among subsets of theoretical interest. The bases for aggregation of the data are developed. The second section reports the results of manipulation checks and the hypotheses tests.

Preliminary Analyses

The preliminary analyses were conducted to examine significant similarities and differences before aggregating the data for further analyses. Total number of participants was 230. The data provided by 218 participants (120 men and 98 women) was effectively usable, after excluding the data provided by those who visibly belonged to racial-ethnic minorities. The data was examined for sex effect. The analyses showed that men and women did not significantly differ in their perception of stress, perception of social
support and coping behaviors (Table 5). Since there was no significant sex
effect, further analyses are based on aggregated data for men and women.

Choice of punishment was another variable for which comparisons
were made between those who selected the lenient punishment, and those
selected the severe punishment. A large proportion of the participants, 157 of
218 (72%) chose the lenient punishment and 61 (28%) selected the severe
option. This distribution was consistent with a similar distribution observed
during the pilot study. The preliminary analyses conducted on the differences
between the two subgroups revealed that except for one moderating variable,
perception of social support, the two groups did not differ significantly on
dependent variables (Table 6). The data, therefore, was aggregated for all the
hypotheses tests except the one, that is, Hypothesis 5, involving moderating
effect of social support.

Manipulation Checks

Minority vs. Majority Status: Manipulation of the independent variable,
minority vs. majority status was tested by employing two Chi-square tests
for two groups of people who watched two different videotapes. The results
showed strong support to successful manipulation of the independent
variable in both the cases (Videotape A: Chi-sq. = 177.05, p < .001 and,
Videotape B: Chi-sq. = 495.0388, p < .001).
Table 5

Mean Values of Perceived Stress, Perceived Social Support
and Coping Behaviors For Female and Male Participants

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-statistic @</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>Female</td>
<td>97</td>
<td>18.18</td>
<td>6.31</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>118</td>
<td>17.43</td>
<td>5.63</td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>Female</td>
<td>97</td>
<td>63.93</td>
<td>13.33</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>119</td>
<td>63.66</td>
<td>13.83</td>
<td></td>
</tr>
<tr>
<td>Coping Behaviors:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to Influence</td>
<td>Female</td>
<td>97</td>
<td>26.85</td>
<td>3.62</td>
<td>-0.37</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>120</td>
<td>27.03</td>
<td>3.47</td>
<td></td>
</tr>
<tr>
<td>Intention to Conform</td>
<td>Female</td>
<td>97</td>
<td>8.54</td>
<td>3.13</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>120</td>
<td>8.25</td>
<td>2.90</td>
<td></td>
</tr>
<tr>
<td>Intention to Withdraw</td>
<td>Female</td>
<td>98</td>
<td>9.75</td>
<td>3.13</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>120</td>
<td>8.99</td>
<td>2.86</td>
<td></td>
</tr>
</tbody>
</table>

@ None of the t-statistic values are significant at alpha = .05
Table 6

Mean Values of Perceived Stress, Perceived Social Support and Coping Behaviors for The Participants Who Chose Lenient and Severe Punishment

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Choice of Punishment</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>Lenient</td>
<td>155</td>
<td>17.39</td>
<td>6.08</td>
<td>-1.55</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>60</td>
<td>17.43</td>
<td>5.51</td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>Lenient</td>
<td>155</td>
<td>62.57</td>
<td>14.55</td>
<td>-2.44*</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>61</td>
<td>66.85</td>
<td>10.07</td>
<td></td>
</tr>
</tbody>
</table>

Coping Behaviors:

<table>
<thead>
<tr>
<th>Intention to Influence</th>
<th>Lenient</th>
<th>156</th>
<th>26.99</th>
<th>3.62</th>
<th>0.29</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Severe</td>
<td>61</td>
<td>26.83</td>
<td>3.32</td>
<td></td>
</tr>
<tr>
<td>Intention to Conform</td>
<td>Lenient</td>
<td>156</td>
<td>8.20</td>
<td>2.89</td>
<td>-1.34</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>61</td>
<td>8.83</td>
<td>3.25</td>
<td></td>
</tr>
<tr>
<td>Intention to Withdraw</td>
<td>Lenient</td>
<td>157</td>
<td>9.38</td>
<td>2.93</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>61</td>
<td>9.23</td>
<td>3.10</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
Social Support: Three statistical tests were conducted to determine effectiveness of the manipulation of social support. The chi-square test indicated significant differences in perception of social support among the participants assigned to different scenarios (Chi-sq. = 99.56, p < .001). The chi-square results are reported in Table 7. Second, regression analysis was used to test the degree of dependence of Perceived Social Support on the manipulation of scenarios. The model resulted in a significant dependence of Perceived Social Support on the manipulation of scenarios (R-square = .52, F = 38.36, p < .001). Third, the results of paired comparisons resulted in nonsignificant differences for planned comparisons.

These results indicate that the significance of the overall model using Chi-square and F-test was due to comparisons between means which are of less theoretical interest to the present study. Literature on social support reviewed earlier indicated that social support can buffer the relationship between stressors and stress. Hypothesis 5 relates to the moderating effects of social support for the present study. Since the manipulation of this variable was weak, its results as they relate to the particular hypothesis should be treated as only exploratory in nature.
TABLE 7
RESULTS OF FREQUENCY DISTRIBUTION AND CHI-SQ. TEST FOR MANIPULATION OF SOCIAL SUPPORT

TABLE OF FREQUENCIES: SCENARIO * LEVEL OF SOCIAL SUPPORT

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Social Support</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>1 No social support to minority (4L: 1S)</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>2 Social support to minority (4L:1S -&gt; 3L:2S)</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>3 No social support to minority (4S:1L)</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>4 Social support to majority (4S:1L-&gt; 5S)</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5 Social support to minority (4S:1L-&gt; 3S:2L)</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>6 Social support to majority (4L:1S-&gt; 5L)</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>7 No social support to majority ( 4L: 1S)</td>
<td>4</td>
<td>35</td>
</tr>
<tr>
<td>8 No social support to majority ( 4S: 1L)</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

87  125  212

Percentages
41%  59%  100%

STATISTIC       DF     VALUE     PROB
CHI-SQUARE      7       99.801    0.000
LIKELIHOOD RATIO CHI-SQUARE 7       118.187    0.000
Hypotheses Tests

The hypotheses developed earlier were tested for both main and interaction effects. The independent variable was status of being an opinion minority or opinion majority. The moderator variable, perceived social support, was also manipulated to check its moderating effects on the relationship between being an opinion minority or opinion majority and perceived stress. The intervening variable was perceived stress which led to other dependent variables, problem-focused coping: intention to influence and intention to conform and to emotion-focused coping: intention to withdraw. The results for each hypothesis tested are discussed in the following.

Hypothesis 1 predicts that individuals in opinion minority involved in group decision making will perceive greater level of stress than individuals in opinion majority. The hypothesis received strong support as indicated by results of a t-test which compared the two groups (t = 6.14, p < .001; see Table 8). Members of the opinion minority reported experiencing greater (Mean = 19.90, s.d. = 6.17) stress than the members of the opinion majority (Mean = 15.36, s.d. = 4.65).
Table 8

Mean Values of Perceived Stress, Perceived Social Support and Coping Behaviors For Majority and Minority Participants

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Majority/Minority</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>Majority</td>
<td>101</td>
<td>15.36</td>
<td>4.65</td>
<td>-6.14**</td>
</tr>
<tr>
<td></td>
<td>Minority</td>
<td>114</td>
<td>19.90</td>
<td>6.75</td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>Majority</td>
<td>101</td>
<td>71.74</td>
<td>7.85</td>
<td>9.98**</td>
</tr>
<tr>
<td></td>
<td>Minority</td>
<td>115</td>
<td>56.79</td>
<td>13.86</td>
<td></td>
</tr>
</tbody>
</table>

Coping Behaviors:

<table>
<thead>
<tr>
<th>Intention to Influence</th>
<th>Majority</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minority</td>
<td>115</td>
<td>27.72</td>
<td>3.28</td>
<td></td>
</tr>
<tr>
<td>Intention to Conform</td>
<td>Majority</td>
<td>101</td>
<td>9.19</td>
<td>3.10</td>
<td>3.71**</td>
</tr>
<tr>
<td></td>
<td>Minority</td>
<td>116</td>
<td>7.67</td>
<td>2.73</td>
<td></td>
</tr>
<tr>
<td>Intention to Withdraw</td>
<td>Majority</td>
<td>102</td>
<td>9.24</td>
<td>2.81</td>
<td>0.47</td>
</tr>
<tr>
<td></td>
<td>Minority</td>
<td>116</td>
<td>9.40</td>
<td>3.11</td>
<td></td>
</tr>
</tbody>
</table>

** p < .01
Hypothesis 2 states that lower the level of stress experienced by opinion minority individuals greater will be their intention to conform to the opinion majority. In other words, opinion minorities experiencing higher stress will express less intention to conform to the majority. The hypothesis was not supported by the data. Correlational analysis on the subset of opinion minorities between perceived stress and their intention to conform resulted in a weak correlation coefficient ($r = .09, p > .34$, Table 9).

Hypothesis 3 predicts that individuals in opinion minority involved in group decision making and experiencing moderate level of stress will express greater intention to influence the majority opinion than the individuals experiencing higher or lower levels of stress. The findings indicated that the hypothesis was not supported.

Two types of analyses were conducted to test the hypothesized curvilinear relationship between perceived stress and intention to influence the majority opinion. First, the data was analyzed by using a regression model with a quadratic term. The t-value for the quadratic term
### TABLE 9

**CORRELATION COEFFICIENTS:**

**OPINION MINORITY**

<table>
<thead>
<tr>
<th></th>
<th>STRESS</th>
<th>SOCIAL SUPPORT</th>
<th>INTENTION TO INFLUENCE</th>
<th>INTENTION TO CONFORM</th>
<th>INTENTION TO WITHDRAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRESS</td>
<td>-0.12</td>
<td>-0.07</td>
<td>0.09</td>
<td>0.23***</td>
<td></td>
</tr>
<tr>
<td>SOCIAL SUPPORT</td>
<td>0.00</td>
<td>0.18**</td>
<td></td>
<td>-0.09</td>
<td></td>
</tr>
<tr>
<td>INTENTION TO INFLUENCE</td>
<td></td>
<td>-0.25***</td>
<td></td>
<td>-0.08</td>
<td></td>
</tr>
<tr>
<td>INTENTION TO CONFORM</td>
<td></td>
<td></td>
<td></td>
<td>0.30***</td>
<td></td>
</tr>
<tr>
<td>INTENTION TO WITHDRAW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**  p < .05  
***  p < .01
(STR * STR) was not significant indicating that the hypothesis could not be supported ($t = -0.03 \ p > .9786$). Second, the data were plotted to obtain visual impressions of the extent of non-correspondence with the hypothesized curvilinear relationship between perceived stress and intention to influence the majority opinion. Two types of plots were obtained: a scatter plot and a plot based on three categories of the data.

The hypothesis implies three levels of perceived stress: low, moderate and high. The subset of opinion minority was accordingly divided into three categories on the basis of their perceived stress scores. The categories were based on the norms of the published sub-scale: tension-anxiety from Profile of Mood States (POMS). Comparisons between the frequency distributions of the data collected for the present study and the data used to develop the published norms for college men and women indicated marked differences between two groups. The norms of POMS showed 61% of the sample in low stress category, 35% in moderate stress category and only 4% in high stress category. Comparative percentages for the current participants were: 34% under low stress, 61% under moderate stress and a similar 4% under high stress. The differences in percentages in lower two categories may be due to nature of experimental manipulation introduced in the present study. In contrast, the published norms for college men and women are based on field-research on out-patients at a university clinic. The norms can, therefore, be used only as a guideline to divide the
participants into three meaningful categories. No other inferences were made about comparisons between the two sets of participants.

Both, scatter plot (Figure 4) and plot based on three categories of perceived stress (Low, Moderate and High) and intention to influence (Figure 5), did not show much support to the hypothesized curvilinearity. The hypothesis, therefore, could not be supported.

Hypothesis 4 predicts that the greater the level of stress experienced by opinion minority individuals the greater will be their tendency to use emotion-focused coping behavior of withdrawal. The hypothesis was supported. Correlational analysis between stress and intention to withdraw for opinion minorities resulted in a positive correlation coefficient ($r = .23$, $p < .01$, see Table 9).

Hypothesis 5 states that individuals in opinion minority involved in group decision making who experience presence of social support will report lower level of stress than those minority individuals who experience no social support. The hypothesis was not supported (Table 10). As discussed earlier in the section on manipulation checks, the instrument intended to create different scenarios of social support resulted in weak manipulation. As a result the moderating effect of social support examined for this hypothesis is only for exploratory reasons.
FIGURE 4

SCATTER PLOT OF PERCEIVED STRESS AND INTENTION TO INFLUENCE
FIGURE 5

PLOT OF THREE CATEGORIES
OF PERCEIVED STRESS AND INTENTION TO INFLUENCE
The preliminary analyses also showed that the participants who selected the severe option differed significantly in their perception of social support from those who selected the lenient option \( (t = 2.45, p < .0156; \text{Table 6}) \). Those who chose severe punishment had a significantly higher mean score (Mean = 66.85, S.D. = 10.07) than those who chose lenient punishment (Mean = 62.57, S.D. = 14.55). The finding suggests that individuals with stricter moral code are more perceptive of social support.

The data was analyzed, as planned, by two sets of hierarchical regression models. First, hierarchical regression models were examined to compare the magnitude of variance in the dependent variable, perceived stress, that could be explained by two predictor variables and their interaction term: viz. opting for severe/lenient punishment and, perceived social support. These analyses were conducted for the minority subset because the hypothesis relates specifically to opinion minorities. Second, hierarchical regression analyses were conducted separately for the two subgroups: 1) those who opted for severe punishment and, 2) those who opted for lenient punishment to examine the amount of variance in perceived stress that could be explained by two predictor variables and their interaction: viz. minority/ majority status and perceived social support.

The first set of hierarchical regressions, showed negligible increment in the explained variance when the interaction term combining
the two predictor variables: opting for severe/lenient punishment and, perceived social support, was added to the model. The first predictor variable, viz. opting for severe/lenient punishment accounted for no variance in perceived stress (R-square = 0.00, F = 0.00, and p > .96). The second predictor variable, perceived social support accounted for very little variance in stress perception (R-square = 0.01, F = 1.63, and p > .20). Both single predictor models, therefore, yielded nonsignificant results. When the interaction term combining the two predictor variables: opting for severe/lenient punishment and, perceived social support was added to the model, it resulted in a marginal increment of 1% in the explained variance in perceived stress (R-square = 0.02, F = 0.82, and p > .49: see Table 10). In order to check the effects of sequence of adding the variables to the model, once the interaction term was entered first which resulted in no appreciable difference in the amount of the explained variance by the interaction term: opting for severe/lenient punishment and perceived social support (R-square = 0.02, F = 1.11, and p > .33). These analyses indicated that there was no relationship between the factors causing selection of severe/lenient option and perceptions of stress for the minority subset.

Alternatively, regression analyses were conducted separately for the two subsets: Lenient and Severe. Three sets of regressions were run for each of the two subsets. The first set examined the amount of variance in perceived stress explained by perceived social support (R-square = .14, F = 24.83, p < .01). The second set with two predictors (minority/ majority status and perceived social support) led to marginal improvement in the
Table 10

Results of Multiple Hierarchical Regression Analyses:

Moderating Effects of Social Support

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Dependent Variable</th>
<th>N</th>
<th>Increments in R-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1: S/L</td>
<td>Stress</td>
<td>113</td>
<td>0.00</td>
</tr>
<tr>
<td>Set 2: SSP</td>
<td>Stress</td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Set 3: SSP, S/L</td>
<td>Stress</td>
<td></td>
<td>0.02</td>
</tr>
<tr>
<td>&amp; SSP* S/L</td>
<td>Stress</td>
<td></td>
<td>0.02</td>
</tr>
<tr>
<td>Set 1: SSP</td>
<td>Stress</td>
<td>152</td>
<td>0.14***</td>
</tr>
<tr>
<td>Set 2: SSP, STA</td>
<td>Stress</td>
<td></td>
<td>0.18***</td>
</tr>
<tr>
<td>Set 3: SSP, STA,</td>
<td>Stress</td>
<td></td>
<td>0.18***</td>
</tr>
<tr>
<td>&amp; SSP*STA</td>
<td>Stress</td>
<td></td>
<td>0.18***</td>
</tr>
<tr>
<td>Set 1: SSP</td>
<td>Stress</td>
<td>59</td>
<td>0.02</td>
</tr>
<tr>
<td>Set 2: SSP, STA</td>
<td>Stress</td>
<td></td>
<td>0.03</td>
</tr>
<tr>
<td>Set 3: SSP, STA,</td>
<td>Stress</td>
<td></td>
<td>0.09</td>
</tr>
<tr>
<td>&amp; SSP*STA</td>
<td>Stress</td>
<td></td>
<td>0.09</td>
</tr>
</tbody>
</table>

*** Significant (p < .01)

STA = Minority/Majority Status
SSP = Perceived Social Support
S/L = Those who opted for severe punishment / Those who opted for lenient punishment
+S = Those who opted for severe punishment
+L = Those who opted for lenient punishment
explained variance (R-square = .18). The third set, with an added interaction term combining the two predictors in the second set (minority/majority status, perceived social support and interaction of the two), showed that, this overall model could add only marginally to the explained variance in the dependent variable, perceived stress (R-square = .1827, F = 11.10, p < .0001, Table 10). The interaction term combining minority/majority status and social support did not contribute effectively in explaining the variance in the dependent variable, perceived stress. The analyses, therefore, provided no support to the hypothesis of buffering effects of social support for the Lenient subset.

Additional analyses, for the lenient subset, showed that when social support was sequentially added as the second variable in the model, the main effect for minority/majority status was much stronger (F = 31.59, p < .001) than that for social support (F = 1.35, p > .2468). Unique variance explained by each variable was not very significant as evident from Type III sums of squares (minority/majority status: F = 1.03 p > .31, social support: F = .23 p > .63). These findings indicate considerable overlap in the variance explained by the two predictor variables.

Identical series of model tests for the Severe subset showed less than 1% increment in the explained variance when minority/majority status was added to the first predictor, viz. perceived social support (R-square = .03, F = 1.31 p > .10, Table 10). The third set, with the interaction term combining the two predictors in the second set (minority/majority status, perceived social support and their interaction), showed that this interaction term did not add significantly to the explained variance (R-square = .03, F = 1.31 p > .10, Table 10).
majority status, perceived social support and interaction of the two), did not yield significant increment for the overall model in its explanation of the variance in the dependent variable, perceived stress (R-square = .09, $F = 1.91, p > .14$, Table 10).

The overall model indicated a main effect of minority/majority status ($F = 3.65, p < .10$). Main effect of social support was weak ($F = 2.06, p < .15$), when social support was added as a second variable in the model. As evident from Type III sums of squares, unique variance explained by social support ($F = 1.93, p < .20$), was greater than that explained by minority/majority status ($F = .21, p > .6493$). The interaction effect of minority/majority status and social support was not significant ($F = .02, p > .88$). The hypothesis of moderating effect of social support, therefore, could not be supported.

Additional Analyses

Additional exploratory analyses of the entire data set revealed greater insight into the differences between minority and majority members. Hypothesis 2 relating to behavioral conformity could not be supported by the data analyzed on the minority subset. Further analysis on the majority showed that members of the majority expressed greater intention to conform to others (Mean = 9.19, s.d. = 3.10) than the members
of the opinion minority (Mean = 7.66, s.d. = 2.73 : t = 3.71, p < .01 : see Table 8). While individuals experiencing greater stress in opinion majority showed a greater tendency toward conformity, those in opinion minority used a different pattern of coping behavior. Minority participants expressed greater intention to withdraw under stress as indicated by a positive correlation coefficient in support of hypothesis 4 (r = .23, p < .01 : Table 9) when compared to the majority (r = .15, p > .05 : see Table 11). The correlation coefficient between stress and intention to conform was stronger for the majority (r = .29, p < .001 : see Table 11) than it was for the minority (r = .09, p > .05 : Table 9). This finding shows that majority and minority members use different types of coping behaviors while experiencing stress in social settings.

In conclusion, this chapter provided two types of information based on the data analyses. First, it provided information on the participants and on comparisons based on variables of particular interest to the study such as gender, minority/majority and choice of punishment. Second, it described the results of manipulation checks and hypotheses tests. The next chapter, Chapter V, will be devoted to detailed interpretation and discussion of the results.
**TABLE 11**

**CORRELATION COEFFICIENTS:**

**OPINION MAJORITY**

<table>
<thead>
<tr>
<th></th>
<th>STRESS</th>
<th>SOCIAL SUPPORT</th>
<th>INTENTION TO INFLUENCE</th>
<th>INTENTION TO CONFORM</th>
<th>INTENTION TO WITHDRAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRESS</td>
<td>-0.16</td>
<td>-0.05</td>
<td>0.29***</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>SOCIAL SUPPORT</td>
<td></td>
<td>0.34***</td>
<td>-0.09</td>
<td>-0.25**</td>
<td></td>
</tr>
<tr>
<td>INTENTION TO INFLUENCE</td>
<td></td>
<td>0.00</td>
<td>-0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTENTION TO CONFORM</td>
<td></td>
<td></td>
<td></td>
<td>0.38***</td>
<td></td>
</tr>
<tr>
<td>INTENTION TO WITHDRAW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** ** p < .05

*** p < .01
CHAPTER V

DISCUSSION OF THE RESULTS

The previous chapter presented results of the data analyses. This chapter provides plausible explanations for the discrepancies between predicted and observed findings. Further it discusses theoretical and practical implications of the results of the study.

The study provided mixed support to the hypotheses. The first hypothesis received strong support. It stated that opinion minority individuals, in group decision making situations, experience greater stress than the opinion majority individuals. Further, the perceptions of stress were found to be significantly related to the emotion-focused coping behavior of withdrawal. The data did not provide support for hypotheses relating to problem-focused coping strategies: intention to conform and intention to influence. Finally, the anticipated moderating effect for social support was
not found and this may have been due to weak manipulation of social support.

The following discussion elaborates on the discrepancies between predicted and observed findings. The discussion is divided into three sections which correspond to three specific linkages among the set of relationships examined (Figure 6). A summary of the hypotheses test results is presented in Table 12.

1. Opinion Minority and Perceptions of Stress

As was hypothesized, individuals in the opinion minority involved in group decision making reported a significantly greater level of stress than did those in the opinion majority (Table 12). The experimental manipulation employed for the study enables us to rule out alternate explanations and to establish a causal link between being an opinion minority and perceiving stress.

The first hypothesis received strong support despite no real participation of opinion minority in group decision making. The experimental manipulation involved watching a videotaped group discussion and answering questions on their perceptions of stress, social support and coping behaviors. The participants were asked to imagine themselves to be part of
Empirical support to hypothesized relationships.
Table 12

RESULTS OF HYPOTHESES TESTS:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Supported?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals in an opinion minority involved in group decision making will perceive a greater level of stress than will individuals in an opinion majority.</td>
<td>YES</td>
</tr>
<tr>
<td>Individuals in an opinion minority involved in group decision making and experiencing low level of stress will express greater intention to conform to the majority opinion than will opinion minority individuals who experience greater levels of stress.</td>
<td>NO</td>
</tr>
<tr>
<td>Individuals in an opinion minority involved in group decision making and experiencing moderate level of stress will express greater intention to influence the majority opinion than will opinion minority individuals experiencing higher or lower levels of stress.</td>
<td>NO</td>
</tr>
<tr>
<td>The greater the level of stress experienced by opinion minority individuals involved in group decision making, the greater will be their tendency to use emotion-focused behavior of withdrawal.</td>
<td>YES</td>
</tr>
<tr>
<td>Individuals in an opinion minority involved in group decision making who experience presence of social support will report a lower level of stress than will those minority individuals who experience no social support.</td>
<td>NO</td>
</tr>
</tbody>
</table>
the group and respond to the questions. The higher stress scores reported by opinion minority, when compared to the opinion majority, lead us to the conclusion that being a minority in a decision making situation can be a stress producing experience.

Research on stress has so far been silent about minorities in decision making groups. In recent years, we have seen growth in research on other types of minorities: racial-ethnic and women in minority. With increasing integration of people from a variety of backgrounds into organizations, we are likely to see greater divergence of opinions in decision-making situations. In particular, individual differences and opinion differences, which are often linked to one another, tend to influence the dynamics of a decision making group. It is not surprising that the minority individuals' awareness of their differences could lead to perceptions of stress. Similar findings of stress due to lack of participation in decision-making and due to lack of control over work environment have been reported about racial-ethnic minorities (Ford, 1984) and about women in minority (Cooper and Davidson, 1982). The present study brought under focus, stress experiences of a minority of another kind: those who differ in their opinion from the majority.

2. Perception of Stress and Coping Behaviors

The hypotheses tests revealed mixed support for the proposed relationships between perceived stress and coping behaviors. It was proposed that the three coping behaviors are differentially related to perceptions of
stress. First, based on the argument provided by the activation theory of motivation (Scott, 1966) and based on the stress literature, a negative linear relationship was proposed between stress and conformity. The activation theory suggests that under low levels of stress arousal, minority individuals would not be motivated to voice their opinion differences. Conformity can be viewed as a vector specifying a range of conformity behaviors. It was argued that under low level of arousal, minority individuals would prefer to take the path of least resistance and would tend to cope with the stress by using behavioral conformity.

Hans Selye's (1956) conceptualization of stress process was also used in developing the hypotheses. He identified three distinct stages of General Adaptive Syndrome (GAS): alarm, resistance and exhaustion. Opinion minority individuals, in face of differences of opinions, were expected to follow a similar pattern. At the initial stage of alarm, they were not expected to respond instrumentally to the stressors, instead they were expected to conform behaviorally.

Second, a curvilinear relationship was proposed between perceived stress and an action-oriented, problem-focused strategy of intention to influence others' opinions. At the second stage of resistance, opinion minority individuals were expected to exert the highest level of effort to influence the majority opinion. Third, a positive linear relationship was proposed between stress and the emotion-focused behavior of withdrawal. According to Selye's theory, organisms reach the final stage of exhaustion when they lack the
ability to withstand stress and fail to function instrumentally. According to activation theory (Scott, 1966), under increasing level of stress, higher anxiety, and tension associated with higher levels of stress would shift their attention to managing their own emotions, and away from others in the group.

The hypothesis relating to the emotion-focused coping behavior was supported. Opinion minority individuals reported greater intention to withdraw under higher levels of stress (Table 12). Similar positive relationship between stress and withdrawal was reported by Anderson (1978) in a field study of owner-managers of small businesses. Withdrawal behavior in a decision making group is often demonstrated by lack of participation or by not expressing a difference of opinion. Janis (1977) discussed several negative effects of such withdrawal behavior which can result in "groupthink", and decision-making fiascoes. Groupthink can lead to overlooking some critical aspects of a decision situation.

Besides its effects on the group, individuals who often experience stressful conditions and cope by withdrawing tend to build feelings of anxiety, resentment and defensive reactions towards others in the group. Greater incidents of physical and psychological ailments are reported among racial-ethnic minorities as a result of continued stressful conditions (Ford, 1984; House, 1981). Withdrawal behavior results in directing the individuals' attention to internal resources, and away from people. They attempt to cope with the problem by managing their emotions. The problem can be
compounded by insensitivity of others around them to their socio-emotional needs of social support.

The hypotheses relating to problem-focused coping behaviors: intention to conform and intention to influence did not receive support (Table 12). There was no relationship between perceptions of stress and intention to conform, and between perceptions of stress and intention to influence. Several explanations may be offered for the discrepancies between predicted and observed results. First, opinion minority individuals under stress may conform publicly but they may continue to differ privately. They may even consider conformity as a viable strategy when involved in a real group decision making situation (Hollander, 1960). Culturally, however, it is not considered desirable to conform readily, while holding a different opinion. Such conformity behavior is seen almost as an act of cowardice or deceit (Allen, 1965). While answering the questions, the participants may have presented themselves generally as being assertive, and therefore preferred the strategy of influencing others over that of conformity. Second, a laboratory experiment, by its nature, cannot fully recreate a real-life situation. Individuals in minority may use conformity as a compromise strategy when involved in a real decision making group. They may not do so while watching an artificially created group. Third, a large number of studies on conformity have examined actual conformity behavior (see Allen, 1965). The present study used a self-report measure of conformity. A self-report measure is more likely to tap participants' private intentions than
their likely behavior. It is possible that self-report measures reflected their private disagreements and not their likely behavior of conformity.

The hypothesized curvilinear relationship between perceived stress and intention to influence did not receive support. One possible reason is that a single stressful event may not create great demands on the coping abilities of most persons. The majority of the studies on stress have used longitudinal designs and measures of stress covering life experiences (Holmes and Rahe, 1967). Creating stress in a laboratory places certain limitations on the duration of the stress episode. A single stressful manipulation in the present study succeeded in creating stress but perhaps it was not strong enough to create demands to cope with the stress. Stress created was restricted in its range. Perhaps a wider range of stress perceptions may have shown the hypothesized curvilinear relationship between perceived stress and intention to influence.

The Yerkes-Dodson Law (1908), General Adaptive Syndrome (Selye, 1956) and the activation theory of motivation (Scott, 1966) have lent theoretical support to the reasoning of curvilinearity. Much of the empirical support comes from several laboratory studies (Baddeley, 1972; Berkun et al., 1962; Bowen et al., 1966; Cleland, 1965; Janis et al., 1966, Cohen 1980) and one field study (Anderson, 1976). Jamal (1984,1985) argued that a negative linear relationship between stress and performance is more prevalent in the real world than in the curvilinear one. In view of such conflicting
perspectives, a systematic examination of this relationship requires further research.

3. Social Support as a Moderator of Minority Stress

The anticipated moderating effect for social support could not be examined due to weak manipulation of social support. The operational definition often used in group research and considered relevant for the present study was, "presence of one person in a group who gives a response that agrees with the subject's private belief or perception" (Allen, 1975). Use of scenarios depicting how one of the group members later provided social support by voting in favor of the minority (or the majority, depending on the experimental condition) did not create sufficient differential perceptions of social support. Since the manipulation of the variable was weak, the data was analyzed purely for exploratory reasons. It was not surprising that the hierarchical regression analyses planned to test the hypotheses resulted in nonsignificant results.

Social support has been conceptualized as a significant contextual variable in the stress process. Earlier research on the moderating effects of social support has yielded mixed results (Abdel-Halem, 1982; Gore, 1981; House 1981; Kessler, Price and Wortman, 1985; Leavy, 1983; Thoits, 1982; Cohen and Wills, 1985, for reviews). Since the present study could not attain a strong enough manipulation of the variable, the findings imply a need to
strengthen the manipulation of the variable and to examine further its role as a moderating variable. The following chapter provides some suggestions for strengthening the manipulation of social support.

Implications for Theory

Several theoretical issues arise from the discussion of the results. The study conceptualized conformity behavior as a problem-focused coping strategy. It was considered problem-focused because, opinion minority by conforming to the majority opinion can attack the root cause of the problem, viz. differences in opinions. Conformity behavior was also seen as more likely to be only behavioral, given the context of the study. The results indicated a significant correlation between the problem-focused strategy of conformity and emotion-focused behavior, withdrawal ($r = .32, p < .001$). Intention to Influence, a problem-focused coping behavior, was found to be negatively correlated with the other two, with a clear three factor structure underlying the three coping behaviors.

These results pose questions about theoretical understanding of conformity behavior. The present study, based on activation theory of motivation and literature on stress, argued that a negative linear relationship exists between conformity and perceptions of stress. It was proposed that under low levels of stress, minority individuals would not be motivated to voice their opinion differences and would tend to conform to the majority. As the level of stress increases, higher anxiety associated with
higher levels of stress would shift their attention to managing their own emotions, and away from conforming to others in the group.

The overall results showed two interesting contrasts. First, there was support to the hypothesized positive relationship between emotion-focused coping behavior of withdrawal and perception of stress. Second, there was no support the hypothesized negative relationship between between conformity and perception of stress. Since these two variables, conformity and withdrawal are positively correlated with each other, the findings suggest that the two constructs, perceived stress and conformity may have a more complex relationship than was examined in the present study. Including some important moderating variables, which are discussed in the following paragraphs, may improve the explanatory power of the study.

The present research focused on a few variables. It did not involve such variables as individual differences (locus of control, extroversion-introversion, Type A-Type B personality), and situational variables (social norms, time pressure, decision criteria). Individuals' beliefs about their locus of control moderate the relationship between perceived stress and conformity. A field study showed that the managers with internal locus of control used more problem-focused coping compared to those with external locus of control (Anderson, 1977). Individuals with internal locus of control, for instance, may not readily conform compared to those with external locus of control.
Similarly, other personality differences among individuals may also influence the linkage between perceived stress and conformity. Extroverts are likely to be quicker in conforming to the majority opinion than introverts. Type-A and Type-B individuals differ in how they cognitively cope with stress (Pittner and Houston, 1980). Type-A individuals being competitive, hard driving may not conform as readily under stressful conditions as Type-B individuals. Type-A individuals were found to make most use of least effective coping behaviors (Howard, Rechnitzer and Cunningham, 1975). They were also characterized as making excessive use of denial and suppression when compared to Type-B individuals (Pittner and Houston, 1980).

Among several situational variables which may affect the process of stress perception and coping, social norms can influence individual conformity behavior. During the process of decision making, the groups develop their dynamics and behavioral norms. Some groups tend to be more cooperative and conformity oriented while other groups tend to be competitive and achievement-oriented. The group norms are likely to influence the conformity behavior of the individuals.

Social norms can operate at the societal level too. Individuals from different cultural backgrounds, while involved in group decision making, are likely to respond differently. Eastern countries encourage conformity behavior relatively more than the Western countries. It would be interesting to examine cross-cultural differences reflected in coping behaviors in groups
comprising of individuals from diverse cultural backgrounds, such as a group of international students or managers in multinationals involved in decision making activity. Similar other situational factors may influence the choice of coping behavior. Time pressure and strictness of decision rules, for instance, may encourage conformity behavior.

The positive correlation between intention to conform and intention to withdraw (r = .32, p < .01) indicates that the participants saw considerable degree of similarity in the two coping behaviors. This study conceptualized conformity as a problem-focused coping because it alters the cause of stress, viz. differences of opinions. The experimental design used for the study, however, precluded chances of total conformity, i.e. change of opinion and behavior. Using behavioral conformity does not fully resolve the differences of opinions, and consequently minority individuals may continue to experience stress. It may, therefore, be necessary to reconceptualize behavioral conformity as more akin to the passive emotion-focused coping of withdrawal.

Finally the study helps our understanding of minority stress in general. The literature reviewed earlier showed that opinion minorities and other minorities (racial-ethnic and women in minority) experience several common stressors, which emanate from the fact that they are in a minority. It is, therefore, reasonable to argue that the findings of the the present study are relevant to minority stress in general.
Additional exploratory analyses discussed in the previous chapter showed that, while under stress, minorities and majorities differed in their use of coping behaviors. Individuals in opinion majority preferred conformity, while those in minority expressed intention to withdraw. Racial-ethnic minorities and women in minority may use similar withdrawal behavior in response to stress. Withdrawal does serve as a temporary solution in dealing with the emotional consequences of the problem, but it does not abate the problem.

Reducing stress and thereby reducing excessive use of withdrawal can help minorities to deal with the real problems. Literature on minority influenced, reviewed earlier, clearly indicated that opinion minorities can contribute effectively to innovation, creativity and better quality decision making (Moscovici, 1985; Nemeth, 1986). Clear understanding of the construct of social support and its effective operationalization may help in demonstrating its role in reducing stress and in thereby encouraging minorities to participate effectively in organizational life.

Implications for Practice

Given the experimental nature of the study and the early stages of the development of relationships under study, it would be hazardous to generalize its findings and offer many recommendations to practitioners. First, all the findings are not conclusive. Second, the limitations of generalizing results of a laboratory experiment to the real world poses
problems of external validity. It is, therefore, prudent to make a few general speculations based on the current study as well as the literature used in developing the study.

One, stress in group decision making is a natural and inevitable part of the human interaction process. Previous research on stress has shown that, depending on a variety of factors, stress can be both functional and dysfunctional. These factors include the level of stress experienced, individual differences and how the stress is managed by those who have power to influence the group behavior. The present study suggests that opinion minorities under moderate levels of stress intend to influence the majority opinion by propagating their own point of view.

Earlier research also showed that minority's desire to influence the majority opinion leads to innovation. A few studies that have been conducted in this area suggest that a minority fosters greater creativity, and better quality decision making, both at individual as well as group level (Moscovici, 1985; Nemeth, 1986). People tend to make better decisions because they attend to more aspects of the situation and they re-examine the premises. This finding points towards an important role that active minorities play, that of agents of change and growth. Fostering differences of opinions, and thereby creating psychological stress, can be functional, especially when the group desires either to consider all aspects of the decision situation or to generate creative, innovative ideas.
Two, groups are often under pressure to reach a decision within a given time period. In such a situation, fostering differences in opinions may prove to be too time consuming. When the time pressure is high, the group leaders may consider encouraging the opinion minority to conform to the group decision. The present study could not establish a conclusive link between stress and conformity. Considerable research on social influence, however, has been devoted to the manner in which opinion divergence is handled in groups. It suggests that conformity may be a desirable option when the groups are working under a deadline.

Three, high levels of stress are detrimental to groups as well as to individuals. One finding of the study is that under higher levels of stress individuals prefer to withdraw and to focus on their own emotions. A withdrawn individual cannot contribute constructively to the accomplishment of the group goal. Withdrawal can also lead to problems of adjustment and physical and mental health, and thereby affect group efficiency. Group leaders need to identify opinion minorities who show signs of withdrawal and help them to cope by reducing their stress. Some strategies of stress reduction are discussed in the following paragraphs on social support.

Four, social support is considered to be a potentially promising element to reduce high stress. The results of the present study, however, were not conclusive. Social support was not effective in the study for several reasons discussed in the previous chapter. Nevertheless, ongoing research on social
support clearly suggests that work, as well as nonwork support can mitigate
effects of unhealthy stress, and can reduce high stress.

Apart from its relationship to stress, social support contributes to
satisfaction, morale and effectiveness of the group (House, 1981). Cohesive
and supportive groups have shown an improved quality of work and higher
morale (Likert, 1961, 1967; Mayo et al., 1951; Trist and Bamforth, 1951).
Leaders of ongoing groups should consider how social support can be built into
and outside of the groups. Managers, first level supervisors, and union
stewards are involved in channels of communication, and therefore can be
the key targets as building blocks of social support. Knowledge of the
importance of social support and the skills necessary to provide it should be
part of their selection and training.

In summary, this chapter provided interpretation and reconciliation
of the results of the study. It offered plausible explanations for differences
between predicted and observed findings. It identified theoretical and
practical implications of the present study. The next chapter will provide a
conclusion by summarizing the study. Limitations of the present study and
suggestions for future research are presented in the next chapter.
CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

FOR FUTURE RESEARCH

The objectives of this chapter are three fold. First, the objective of the study, the hypotheses and the conclusions are summarized. Second, limitations of the study are listed. Finally, suggestions for future research are presented.

The objective of the study was to examine stress experienced by opinion minorities, their resulting coping behaviors and the extent to which social support moderates minority stress.

Traditional literature on stress and coping, and on social influence has not looked at opinion minorities in decision making groups. Research on minority stress and coping has dealt mostly with blacks and other racial-ethnic minorities (Brown, 1975; Brown and Ford, 1977; Edwards, 1980; Ford and Gatewood, 1976; Ford, 1976, 1978, 1979, 1984; Ramos, 1975). Another minority group which has received some attention is women (Ford, 1984; Cooper, 1981; Davidson and Cooper, 1984). Literature on social influence has
been dominated by an interest in how majority influences the minority and pressures it to conform (Festinger, 1950, 1957; Allen, 1965, 1975). An exception is the relatively recent development of a paradigm of minority influence (Moscovici et al, 1969; Moscovici and Nemeth, 1974; Moscovici, 1980, 1985; Nemeth, 1986).

The study established at the outset the need to examine stress experienced by opinion minorities in decision making groups. It was proposed that individuals in opinion minorities involved in group decision making perceive a greater level of stress than do individuals in the opinion majority. The study sought to examine the role of social support among many contextual factors which may influence the perception of stress. Similarly, the study selected three coping behaviors: intention to conform, intention to influence, and intention to withdraw.

It was proposed that the influence of minority status on perception of stress is moderated by the presence of social support. Finally, it was proposed that the level of stress perception would lead to three coping behaviors, grouped into two functional categories: 1) Problem-focused coping: intention to conform and intention to influence, and 2) Emotion-focused coping by withdrawal.

The data analyses provided mixed support to these hypothesized relationships. Individuals in opinion minority reported greater stress than those in opinion majority. Perceptions of stress were found to be positively
related to the emotion-focused coping behavior of withdrawal. The data did not provide direct support for hypotheses relating to problem-focused coping strategies: intention to conform and intention to influence.

Limitations

The results of the study have to be evaluated with considerable caution because of the following limitations placed on the study.

The scope of the study was limited to a few variables. The study did not include other relevant variables such as individual differences and other physical and behavioral outcomes of stress. Literature on other minorities (racial-ethnic and women in minority) was used to arrive at common stressors which are at the base of minority stress. These stressors, were not manipulated in the present study. The independent variable, minority status (minority/majority) was manipulated, based on an assumption that being in a minority implied presence of the common stressors.

Choice of experimental design as a mode of observation placed certain limitations. While experimental control was useful in isolating the variables under study, it also brought a degree of artificiality. Further, laboratory experiments are often rather limited in their generalizability. Consequently, results of laboratory experiments tend to be limited. Generalizing the results to conditions beyond the experimental setting poses problems of external
validity. The results may be extended to opinion minorities in decision making groups as a guarded generalization.

The design used for the study was based on an initial choice between lenient or severe punishment and then random assignment of the participants to the experimental conditions. This was done to create a sense of ego-involvement, and identification with the choice made, which was necessary to experience stress under laboratory conditions. The design also provided a plan to compare the two experimental groups (those who opted for severe and those who opted for lenient punishment), on key dependent variables to see whether they differed significantly and to analyze the data separately if they did. This procedure was a digression from a pure experimental design to ensure a strong manipulation of being in the minority/ majority.

The design of initial choice resulted in unequal cell sizes. Although the plan included random assignment to minority/ majority status and to the experimental conditions of social support, the initial choice given to the participants poses some questions about theoretical importance of this particular variable, viz. choice of lenient/ severe punishment. How important is the variable, choice of lenient/ severe punishment, to other variables included in the study? Are the participants likely to differ on some other related personality dimensions which were not included in the study? Comparisons based on their separate analyses on the key dependent variables help in alleviating some of the concerns. On the face of it, the variable does
not have theoretical significance. It was included to create strong manipulation of the independent variable. However, considering that the participants were not randomly assigned at the first stage of the experiment, such concern cannot be fully alleviated.

Use of videofilms to standardize the experimental stimulus excluded the participants from their direct involvement in group decision making. Although they were requested to imagine themselves to be part of the group, perhaps, they felt a limited sense of involvement. One of the measures taken to overcome this drawback was to give them an interesting, ego-involving task and to let them make a behavioral choice. Behavioral choices, based on the case of cheating in an examination, were planned to create a sense of ego-involvement and a sense of identification with the person in the videofilm who made the same choice and argued for the position (minority/majority). The procedure led to successful manipulation of minority/majority status, but at the same time restricted their participation.

Future Research

Implications of the present study, discussed in the previous chapter, and the limitations discussed above point towards specific directions for future research.
One, the study did not provide support to the concept of a curvilinear relationship between opinion minority stress and action-oriented, problem-focused coping behavior of intention to influence. The range of perceived stress was restricted. Perhaps a field study covering a wider range of stress perceptions might have lent support to the concept of curvilinearity. Several laboratory studies (Baddeley, 1972; Berkun et al, 1962; Bowen et al, 1966; Cleland, 1965; Janis et al, 1966, Cohen 1980) and one field study (Anderson, 1976) have lent support to the concept of curvilinear relationship between stress and performance. Jamal (1984,1985) argued that a negative linear relationship between stress and performance is more prevalent in the real world than a curvilinear one. In view of such conflicting perspectives, a systematic examination of this relationship requires further research.

For obtaining a wider range of stress perceptions, future studies may consider using methods other than self-report questionnaire. It is feasible to obtain physiological measures of stress from a group of individuals involved in decision making in a laboratory setting. Physiological measures such as blood pressure, galvanic skin response are considered fairly sensitive and accurate indicators of psychological stress. Future researchers may also consider using electronic equipments to record stress perceptions. The participants can record their perceptions of stress while being involved in a group discussion. These alternate methods have an advantage of instantaneous recording of stress while the group decision making activity is in progress. Because the perceptions of stress are not allowed to dissipate, a wider range of stress perceptions may be recorded.
Two, a field or a laboratory experiment using direct observation, rather than a self report questionnaire, is likely to elicit a more accurate measure of conformity behavior. One of the problems in research involving real groups, however, is the variability in group dynamics across groups. Planting confederates helps to standardize independent variables in laboratory settings. Studies involving confederates have conventionally placed them in minority positions (Maass and Clark, 1984; Tanford and Penrod, 1984). These studies have focused on the majority's attributions about the minority behavior. The present study focused directly on the perceptions of the minority about their own cognitions of stress, social support and coping behaviors. In this context, confederates, if used, would be the majority individuals. A study based on direct observation of real groups, involving majority confederates and minority subjects, would imply a need for a large number of groups to arrive at meaningful results. In other words, each group would provide only one data point, for one minority individual. One of the reasons of scarce use of real groups in research on group behavior is the requirement of a large number of participants. This potential problem, however, can be overcome, if a large enough subject pool is available for research.

Three, including other relevant variables such as individual differences (locus of control, Type A-Type B personality, introversion–extroversion), and contextual factors (socio-cultural norms, decision criteria,
time pressure) will not only expand the scope of the present study, but also improve its explanatory power. Theoretical implications of the present study discussed in the last chapter provide details of how these factors are likely to affect the variables under study. Questions on individual differences and social-cultural norms may be included in the questionnaire. Decision criteria and time pressure can be varied in experimental setting to examine their effects on coping.

Four, researchers interested in the role of social support in the process of minority stress should consider strengthening its experimental manipulation. In the present study, use of scenarios led to very weak manipulation of the variable. The scenarios could not effectively create perceptions of presence of a social supporter who is seen as a provider of the global functions of social support (emotional, informational, material, and instrumental). Future research should consider improving the quality of the manipulation of peer support in laboratory setting, as well as including other sources of social support.

Several other work-related sources of social support (supervisor, union leaders, counselors), as well as other extra-organizational sources (spouses, family and friends) can be included. One approach is to modify the scenarios of social support to include some of these sources, as well as specific functions of social support (emotional, informational, material, and instrumental). A second approach is to include the role of a social supporter in written scripts for discussions to be videotaped. While considering this
option, researchers should be cautious that the manipulation of experimental conditions is clearly separated, and that no confounding occurs between minority/majority status and social support.

Research on social support to racial-ethnic minorities in work organizations suggests that supervisors as the focal persons providing social support (House and Wells, 1977; House, 1981). There are also reports that cross-race relationships involving minority subordinates and white supervisors are a major source of minority stress (Adams, 1978; Ford, 1980). Several articles on social support also indicate that emotional support was more valued compared to other sources of support (Edwards, 1980; Cohen and Wills, 1985). These trends on literature on social support offer some hints that might aid in enhancing support to minorities. They suggest that a field study focusing on supervisory personnel in organizations, may address the issues of relative importance of various facets of social support.

A field study involving organizational groups will help in enhancing generalizability of the present study. Group decision making is a normal organizational activity. Ongoing groups such as committees, task forces can be compared with new groups, in how they differ in their treatment of opinion minority. Minority individuals' perceptions of stress, social support: (sources as well as functions) will help in broadening the implications of the present study.
Finally, the present study examined the role of social support as a moderator variable. Future researchers may consider several other ways in which social support may influence stress perceptions of opinion minorities, both by exerting main effects as well as interaction effects.

In conclusion, the chapter provided a summary of the study. It listed the limitation of the present study so that its findings are treated with due caution. Finally, it offered some suggestions for future research based on its limitations, and its theoretical and practical implications.
APPENDIX A

ACADEMIC MISCONDUCT
Academic Misconduct

A case of academic misconduct was reported recently at the School of Business. The case will shortly be placed before the university committee which deals with academic misconduct. The School of Business is interested in reactions of the students to this case. Your stand on this case will have a bearing on the School's policy to deal with similar cases in future.

Please read the following case carefully. Assume that you are in a position to influence the decision. In other words, step into the role of a committee member who will discuss it with other members of the committee. Remember that as a committee member your duty is to ensure that the students' rights to due process are not violated and also that the academic integrity of the university is maintained.

Chris (real name is not given to protect the identity of the student), is an undergrad business major enrolled in a class of Business Statistics 330. It is a common practice for the instructors who teach this course to allow students to bring with them one sheet of paper (8 1/2" x 11") with formulas which are too cumbersome to memorize but are required to solve decisional problems in the exam. The students are also instructed not to scribble anything else other than the formulas on this sheet. Cheating from the crib sheet is considered a serious violation of the rules.

An instructor of the course found Chris cheating from the crib sheet. When accused of cheating, Chris denied the guilt and pleaded on the ground of ignorance of such a strict implementation of the stipulated rules. The instructor has filed a written report on the incident recommending a severe action of suspension from enrollment for a quarter which will form part of permanent record of Chris' transcripts. Alongwith the instructor's recommendations, there are other supporting documents of two witnesses and a statement by Chris. Chris, a first time offender and an average academic performer, pleads for leniency.

As a member of the academic misconduct committee, what would you recommend? (Circle one):

A) Suspension for a quarter with an entry in the permanent record.
B) An oral warning without an entry in the permanent record.
APPENDIX B

SCENARIOS OF SOCIAL SUPPORT
Scenario 1

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of severe punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of lenient punishment:
John S.: The person at the left extreme in a red and white striped shirt. Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt. John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes in the same manner as shown above.
Scenario 2

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of severe punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of lenient punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes. During the course of discussion, Bob felt that he could get some support from John D. When he asked John, "What do you say?", he found that John was willing to provide him support to argue the case in his favor. Initially John was non-committal and said that it was probably a case of different interpretations, but later on agreed that it was a clear case of cheating and that he would also vote in favor of Bob's position. Finally, two of them Bob and John D. voted in favor of severe punishment and the other three, John S., Scott and Steve voted in favor of lenient punishment.
Scenario 3

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of lenient punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of severe punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes in the same manner as shown above.
Scenario 4

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of lenient punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of severe punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve:
Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes. During the course of the discussion other members of the group sought support from Bob so that they could arrive at a group decision. After some deliberations, Bob agreed to provide support and voted in favor of severe position. Finally all the members of the group voted for severe punishment.
Scenario 5

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of lenient punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of severe punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes. During the course of the discussion Bob felt that he could get some support from John D. When he asked John, "What do you say?", he found that John was willing to provide him support to argue the case in his favor. Initially John was non-committal and said that it was probably a case of different interpretations, but later on agreed that it was not a clear case of cheating and that he would also vote in favor of Bob's position.
Finally, two of them Bob and John D. voted in favor of lenient punishment and the other three, John S., Scott and Steve voted in favor of severe punishment.
Scenario 6

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of severe punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of lenient punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes. During the course of the discussion other members of the group sought support from Bob so that they could arrive at a group decision. After some deliberations, Bob agreed to provide support and voted in favor of lenient position. Finally all the members of the group voted for lenient punishment.
Scenario 7

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of severe punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of lenient punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes in the same manner as shown above.
Scenario 8

On how the group finally voted

The group was given 15 minutes to discuss the case. You may have noticed that the students you watched had not reached any decision when the film abruptly ended. Did you notice that the members of the group argued for the following positions on the case?

In favor of lenient punishment:
Bob: The guy at the right extreme in purple colored shirt.

In favor of severe punishment:
John S.: The person at the left extreme in a red and white stripped shirt.
Scott: Second person from the left, spectacled and in a white shirt. Steve: Bearded guy in the center in a green shirt.
John D.: Second person from right, blonde, in a light blue shirt.

The group had not come to any decision when the film suddenly came to an end. In fact, they continued discussing the case and later on registered their votes in the same manner as shown above.
APPENDIX C

LIST OF ARGUMENTS IN FAVOR OF LENIENT AND SEVERE PUNISHMENT
List of Arguments in Favor of Lenient Punishment

1. It was not a clear case of cheating.  
   Rules were not clear.

2. He is a first-time offender and deserves leniency.

3. Don't ruin his future for such a minor offense.  
   We all make mistakes.  
   Cheating from a crib sheet is less serious than cheating from others.

4. He didn't realize that he was doing something seriously wrong.  
   He was not aware of such a strict implementation of a rule.  
   Many instructors are difficult to understand. He may not have understood what the instructor said.

5. The instructor shouldn't have allowed the crib sheet.  
   Allowing a crib sheet is permitting cheating.  
   When a crib sheet is allowed, temptation is too strong.

6. Don't make him a scapegoat. Many others may be in a similar position.  
   Did the professor check others' crib sheets?

7. Many instructors allow anything written on the crib sheet.

8. Check his overall academic record and then decide.

9. What about those who bring programmable computers/calculators to examinations requiring math? They can program information other than formulas too.

10. It is difficult to enforce such rules.
List of Arguments in Favor of Severe Punishment

1. Cheating is wrong, immoral.
   Cheating is a serious offense.
   Cheater deserves to be punished.

2. Rules were stated. He violated them.
   He was told to write only formulas.

3. Ignorance is no excuse.
   He should have listened.
   He should have known.

4. He pleaded for leniency which shows that he was aware of his wrong-doing.

5. Cheating is unfair to other students, especially when the grades are curved.

6. It may lead to undeserved success and an incompetent employee later.

7. It will teach him a lesson and to others too.
   If he is allowed to violate the rules and get away, other students would be encouraged to do the same.

8. Rule have some rationale behind them. Why break them?

9. If we allow cheating, the image of the university gets tarnished.
   Quality of an educational institution is judged by the demands of morality and ethics it makes on its population.

10. Cheating is a tool for the weak. They deserve to be punished.
APPENDIX D

QUESTIONNAIRE
APPENDIX 4

Questionnaire

PART 1: PERCEIVED STRESS

The group of students you just watched discussed the same case which you read earlier. We are interested in your reactions to the discussion. First, please write the name and brief physical description of the person with whom you agreed the most. Imagine that you are a member of the group, in place of this person. Then read the following list of reactions and as you read them please rate them on a scale of 1-5 circling appropriate numbers.

Name and description of the person: ________________________________

<table>
<thead>
<tr>
<th>Reaction</th>
<th>Not at all</th>
<th>A Little</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Tense</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2) Shaky</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3) On Edge</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4) Panicky</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5) Relaxed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6) Uneasy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7) Restless</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8) Nervous</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9) Anxious</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
PART 2: PERCEIVED SOCIAL SUPPORT

We are interested in your perception of social support available to the members of this group. Social support is defined as help available in terms of understanding, caring and sharing of information. Following statements describe some common reactions to the group of students you just watched discussing the case. We would like to know the extent to which you agree with these statements, while you continue to imagine yourself to be part of this group.

How would rate your perceptions of social support available to you? Please rate the following statements on a scale of 1-5 encircling appropriate numbers.

<table>
<thead>
<tr>
<th>SD = Strongly disagree</th>
<th>D = Disagree</th>
<th>S = Strongly Agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Help is available in the group when the members need it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. This group would fail to appreciate any extra effort by me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. The group would value my contribution.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. The group would be sensitive to my values.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. The group will ignore any complaints from me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. The group really cares about its members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. The group is willing to extend itself in order to help me perform my job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. This group would fail to understand my personal problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>This group will forgive an honest mistake on my part.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>If given the opportunity the members of this group will take advantage of me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Even if I did the best job possible the group would fail to notice it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>This group will be willing to help me when I need a special favor.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>The group would show very little concern for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>The group would care about my opinions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>The group would try to make the task as easy for me as possible.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>This group would fail to appreciate extra effort from me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>The group would not show any regard to my interests while I am involved in making decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>The group would grant a reasonable request to its members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>The group would take pride in my accomplishments as a member of this committee.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Members of this group would prefer to replace me with someone who is more agreeable with them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
PART 3: BEHAVIORAL REACTIONS

If you were to be a member of this group, how would you react to the situation you just watched? Please rate the following statements on a scale of 1-5 encircling appropriate numbers.

SD = Strongly disagree  D = Disagree  ? = Indifferent  A = Agree  SA = Strongly Agree

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>30. Get together with the group members and discuss the issue so that I can try to change their opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>31. Explain to others what I really feel about the issue being discussed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32. Talk with people involved and persuade them to see my point of view.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33. Decide what I think should be done and explain this to the people who are involved.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34. Try to see the situation as an opportunity to express my opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35. Work at gaining respect so that others will value my opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>36. Try to communicate more effectively.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>37. Agree with others so that I can avoid an unpleasant situation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>38. Agree with others and bide for an appropriate time to express my true feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>D</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>39</td>
<td>Accept the situation because there is nothing I can do to change it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>40</td>
<td>Decide to go along with the majority opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41</td>
<td>Vote in favor of the majority opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42</td>
<td>Avoid being in a similar situation, if I can.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43</td>
<td>Try to keep away from this type of a situation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>Separate myself as much as possible from others who created this situation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45</td>
<td>Do my best to get out of the situation gracefully.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
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Emerson, R., Deviation and Rejection: An Experimental Replication, American Sociological Review; 1954, 19, 688-693.


Houston, B. K., Control Over Stress, Locus of Control and Response to Stress, *Journal of Personality and Social Psychology*, 1972, 21, 2, 249-255.


Lyons, T., Role Clarity, Ne for Clarity, Satisfaction, Tension, and Withdrawal, *Organizational Behavior and Human Performance*, 1979, 6, 99–110.


