Attribution styles regarding the cause and solution to problems, social support preferences, and mood changes following social comparison

Thomas Leo Diana

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Attribution styles regarding the cause and solution to problems, social support preferences, and mood changes following social comparison

Diana, Thomas Leo, Ph.D.

Iowa State University, 1990
Attribution styles regarding the cause and solution to problems, social support preferences, and mood changes following social comparison

by

Thomas Leo Diana

A Dissertation Submitted to the Graduate Faculty in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY

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For the Graduate College

Iowa State University
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1990
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INTRODUCTION

Other than the fact that attribution theory, social support, and social comparison are topics that one is likely to find in an introductory social psychology text, they may appear to be unrelated areas of study. However, they do share some important characteristics. In particular, each may be viewed as a means of coping with negative life events or personal problems. One may observe how attributions are often made to allow people to gain a sense of control over their sometimes uncontrollable world. Social support could be sought to help individuals overcome the difficulties they encounter due to their problems. Social comparison, in the form of downward comparison, can be used for self-enhancement purposes when people are experiencing a threat to their subjective well-being.

The purpose of the following study is to explicate how these means of coping are interrelated. In particular, this study will demonstrate how one's style of making attributions regarding personal problems will affect one's preferences for specific forms of social support. One's attribution style would also mediate how one's mood will change in response to social comparison. Before speaking further on the relationship between these three areas, each will be discussed in greater detail.
Attribution Theory and Research

Foundations

Whenever a person attempts to answer the question, "Why?" concerning human behavior, an attribution is being made. Attribution theory attempts to provide us with an understanding of the process through which we explain the impetus behind behavior. Simply stated, it is a theory of causal explanations.

Fritz Heider (1958) provided the groundwork for much of the present research within attribution theory. Whereas Heider's theory of attribution was not very systematic, his distinction between situational and dispositional causes of behavior has endured quite well. In fact, even in its present state, attribution theory would not be considered a unified theory as much as a collection of principles and propositions.

Attributions and Perceived Control

One may well ask why attributions are so frequently made. A common assumption is that attributions give us a better understanding of our world. This increased understanding could then be rendered into a greater sense of predictability and control over the environment. In this sense, the attributions made regarding negative events are of particular importance. These attributions may determine
how people will perceive others who are victimized. More importantly, they may also affect how individuals will deal with problems that befall them. In either situation, attributions play an integral role in how people cope with negative events.

**Attributions regarding others.** There are several bodies of research that provide evidence supporting the proposition that attributions are control-motivated. The Just World hypothesis (Lerner, 1965, 1980; Lerner & Simmons, 1966; Lerner & Miller, 1978) states that people have a need to believe that they live in a world where they get what they deserve and deserve what they get. That is, one needs to perceive an appropriate match between what one does and what happens. If another’s suffering can not be attributed to specific acts or events, then it is presumably due to their character. This would most notably occur when one is powerless to do anything about the other’s suffering. Evidence of an unjust or random world is a threat to one’s sense of personal control. Belief in a just world is maintained even if it means that one must derogate a victim of misfortune.

In her study concerning the assignment of responsibility for an accident, Walster (1966) predicted that as the accident’s consequences became more serious,
subjects would be more likely to assign responsibility to some perpetrator. Her reasoning was similar to that found in Just World theory. If an accident is seen as resulting from an unpredictable cause, beyond anyone's control, one is forced to concede that the same fate could befall them. However, if responsibility is assigned to someone, a person could maintain the belief that the situation is avoidable.

Attributions regarding oneself. Just World theory and Walster's (1966) work emphasize how a person makes attributions regarding others in order to enhance one's sense of control over future events. It is important to note that the same goal may be achieved in making attributions regarding one's own behavior. For example, during times of personal crisis, people are likely to experience a profound loss of control over their lives. It is during these times that they would likely make self-attributions that serve to decrease their sense of powerlessness.

Attributions that emphasize the controllability of problems may do more than provide the comfort that comes from believing that one is not powerless. A sense of empowerment may actually be quite useful in motivating people to actively cope with particular negative life events as well as more chronic personal problems. For example,
people may begin to accrue information or resources related to their problem and its solution. Furthermore, the attributions one makes concerning personal problems may affect the specific strategy or approach that is utilized in overcoming them.

Adaptive vs. maladaptive self-attributions. While attributing the cause of negative life events to oneself may provide a greater feeling of mastery and control, the general adaptiveness of such attributions appears to be conditional. Janoff-Bulman (1979) appeared to recognize that self-blame can be either adaptive or maladaptive in making the distinction between "characterological" and "behavioral" self-blame. Characterological self-blame focuses upon one's moral constitution or status while behavioral self-blame, as the name implies, focuses upon the particular actions of an individual. Janoff-Bulman states that "the primary distinction to be drawn between behavioral and characterological self-blame is the perceived controllability (i.e., modifiability through one's own efforts) of the factor(s) blamed" (p. 1799).

The importance of "realistic" self-blame in coping with problems was emphasized in a study by Westbrook and Nordholm (1986). These researchers looked at patients who made either self- or other-blaming attributions for diseases in
which life-style involvement is believed to be high (e.g., heart attack, stroke) or low (e.g., cancer, arthritis). The heart attack and stroke patients who tended to blame themselves were rated by health practitioners as coping better than those who blamed chance for the same maladies. However, cancer and arthritic patients who blamed themselves for their condition were judged to be coping more poorly than those who blamed chance events.

One conclusion that is suggested from the above studies is that self-attributions that emphasize controllable factors (e.g., behaviors, life-styles) are adaptive while those that emphasize uncontrollable factors (e.g., one's character, certain diseases) are maladaptive. However, even the tendency to make "maladaptive" self-attributions highlights the importance of believing that one's environment is controllable. If negative events are perceived as controllable, they can hopefully be avoided in the future.

Attribution Styles

Several authors have suggested that individuals may have a characteristic way of making causal explanations. In other words, they may have an attributional style. People's attributional style may influence how they generally tend to interpret problem situations. Attributional styles can also
influence how well (or how poorly) people will cope with their problems.

Seligman, Abramson, Semmel, and von Baeyer (1979) argued that a depressive attributional style exists in that depressed individuals habitually tend to attribute negative events to characteristics that are internal, stable, and global (i.e., occurring in a variety of situations). They also found that depressed individuals attributed positive events to external, unstable causes significantly more often than did non-depressed individuals. Anderson and Arnoult (1985a, 1985b) also argued for the existence of an attributional style for depression, loneliness, and shyness. Their conclusions differed from those of Seligman et al. (1979), however, in that locus of cause and controllability (particularly the latter) proved to be the best predictors of depression, loneliness, and shyness. It appears that attributing a problem's cause to uncontrollable factors produces little motivation to overcome that problem.

As noted above, certain attributional styles can create or perpetuate problems for an individual. However, one's attributional style may also be adaptive in that it could motivate a person to positively cope with his or her problems. Just as people make causal attributions to gain a sense of control over their world, they may adopt a general
attribitional style to provide them with a framework or schema for addressing and resolving problems.

Attribution of Responsibility

Causality vs. responsibility. It is possible that the entire concept of "causality" is unduly restrictive to research on attribution and attributional styles. "Cause" denotes something that produces an effect. By definition, the study of causal attribution is primarily a study of the past. Although the introduction of dimensions such as "controllability" and "stability" can imply a possible future orientation, temporal ambiguities still remain. In addition to attributions of causality, an examination of attributions of responsibility may help to expand the parameters of attribution theory and research. The term "responsibility" is more comprehensive, implying individual accountability not only for causing a past event but also for continuing to exert influence over it. In other words, "responsibility" addresses two separate issues - blame and control (cf., Feinberg, 1970). By adopting such a conceptual framework, researchers may then focus on attributions of responsibility for the cause of an event as well as attributions of responsibility for changing that event.
Attributional models of responsibility. In their presentation of various models of helping and coping, Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder (1982) did, in fact, make the distinction between attributions of responsibility for a problem's cause and attribution of responsibility for its solution. An important aspect of the models presented by Brickman et al. is that each is proposed to have distinct implications for the type of help that is sought (and offered) by people who are experiencing problems. This is innovative in that these authors do not look solely at causal attributions. By including attributions of responsibility for a problem's resolution, their models expand upon previous research in attribution theory. They look not only at past causes but also at future solutions.

Briefly stated, in the moral model, people are responsible for both causing and solving their problems. Under this model, people would perceive themselves (and be perceived) as unmotivated and needing a reminder of how important it is that they help themselves. In the compensatory model, people are not responsible for causing their problem but are still responsible for solving it. Here, they perceive themselves as deprived or suffering and in need of empowerment. In the medical model, people are
responsible for neither the cause nor solution to their problems. Within this model, people are "ill" and in need of expert treatment. Finally, in the enlightenment model, people are responsible for causing their problems but not for solving them. In this case, people perceive themselves as guilty or sinful and needing to submit to the stern or sympathetic discipline of authorities.

Attributional models and problem resolution. Rabinowitz (1978) had earlier demonstrated how each of these models is exemplified in a variety of field settings. She found that a) graduates of erhard seminars training (est) were representative of the moral model in that they saw themselves as individuals who were essential agents of change, b) participants in job training under the Comprehensive Employment and Training Act (CETA) were representative of the compensatory model in that they saw themselves as deprived individuals who needed a tutor to assist them for a short time, c) members of Campus Crusade for Christ were representative of the enlightenment model because they saw themselves as self-destructive and needing guidance from others, and d) patients in the waiting room of the college infirmary were representative of the medical model by virtue of seeing themselves as sick and in need of skilled professionals.
Individual differences in applying attribution models. Whereas one may find evidence that different models may be applied in a variety of settings, it is also entirely possible that individuals may demonstrate a general tendency to apply a particular model of coping across a wide variety of situations. For example, certain people may tend to see themselves as responsible for both the cause and solution to their problems (i.e., apply the moral model) regardless of the context in which these problems occur. Others may typically apply the medical model in that they blame their problems on factors outside of themselves and do not believe that they can or should be responsible for resolving them. In other words, one's personal "model" can be viewed from an individual differences perspective. Although some has been written about causal attributional styles (cf., Peterson, Semmel, von Bayer, Abramson, Metalsky, & Seligman, 1982), nothing has been said about the existence of a solution-oriented attributional style.

An individual may prefer to apply a particular model of coping across different settings. One's attributional model or style may affect the preference for or responsiveness to the different forms of help that are offered. Certain types of "help" may be perceived as more or less in concordance with one's attributional style.
Attributional styles may not only affect one's preference for and responsiveness to certain forms of help; they may also affect people's perceptions regarding their ability to help themselves. This would especially be true regarding attributional styles of responsibility. There may actually be a circular relationship between attributing responsibility for solving problems to oneself and self-efficacy. People who tend to accept responsibility for solving their problems may also perceive themselves as more efficacious in general. Increased feeling of self-efficacy may then be translated into greater willingness to attribute responsibility for solving problems to oneself. One's self-esteem would also benefit from such an attributional style. If people maintain the belief that they have the ability and responsibility to solve their problems, they would also tend to feel generally good about themselves.

Attributional styles can play a significant role in determining the timing and manner in which an individual will choose to seek help for personal problems. One's attributional style may even determine if a person is willing to seek help for a problem. If and when people do seek help, their attribution style may not be entirely evident solely on the basis of where they seek help (cf., Rabinowitz, 1978). Just as people may adopt a particular
attribution style that guides their manner of coping with a wide range of problems, it is also possible that many different types of help may be sought through one helping modality. Any one modality must be very comprehensive if it is to accommodate people with different attribution styles. Many forms of aid must be available. Social support (and support groups in particular) would fit this specification.

Social Support
Definition

Many forms of help may be considered to be "social support." Perhaps this is because the term itself is very general. In fact, some definitions of social support are so broad that they are nearly circular. Cohen and Syme (1985) have stated "Social support is defined as the resources provided by other persons" (p. 4). Similarly, Lin, Ensel, Simeone, and Kuo (1979) define social support as "support accessible to an individual through social ties to other individuals, groups, and the larger community" (p. 109). Other conceptualizations have attempted to be somewhat more specific but actually do not provide much more information than is contained in the preceding definitions. For example, Cobb (1976) identified social support as
"information leading the subject to believe that he is cared for and loved...esteemed and valued..." (p. 300).

Facets of Social Support

Wortman and Conway (1985) attempted to delineate particular facets of social support. In their summary of the literature, they concluded that social support may include: a) expressing that a person is cared for, loved, or esteemed (cf., Cobb, 1976); b) expressing agreement with or acknowledging the appropriateness of a person's beliefs, interpretations, or feelings; c) encouraging the open expression or ventilation of feelings and beliefs; d) offering advice or information or providing access to new sources of information; e) providing material aid; and f) providing information that the person is part of a network or support system of mutual obligation or reciprocal help.

Individual Differences in Social Support

Each facet of social support plays a fairly specialized role in helping people cope with problems or negative events. The utility of each facet may depend upon the particular needs of the individual and the demands of the situation. One's beliefs regarding the problem situation and its potential resolution could influence how effective each form of support will be in assisting an individual. Certain individual characteristics have been shown to
influence a person’s willingness and/or ability to utilize some of the many forms of social support.

Locus of control. Several studies have found specific personality variables to be related to differing levels of social support obtained by people. For instance, Sandler and Lakey (1982) discovered that people with an external locus of control reported a higher quantity of social support than did people with an internal locus of control. However, those people with internal loci of control actually experienced more of a stress-buffering effect from the support that was administered to them. These results were replicated by Lefcourt, Martin, and Saleh (1984).

Type A personalities. Kelly and Houston (1985) found that Type-A women who perceived themselves as having many sources of support reported experiencing more stress and tension than did those who believed they had little support. In this case, possessing much social support had a negative effect. It is possible that Type-A individuals (notably Type-A women) may perceive having many sources of support as an added personal responsibility.

Social support as a personality variable. Finally, Sarason, Sarason, and Shearin (1986) actually viewed social support as a personality variable in itself. That is, the primary difference between those high and low in social
support is that the latter group is seen (both by themselves and others) as more deficient in social skills.

Attributional styles regarding the causes of and solutions to problems, particularly the latter, may well be another individual characteristic that could have a direct effect on a person's preference for certain forms of support. As alluded to earlier, one's attribution style may help determine whether a person is willing to seek any form of help from others. Since attribution styles can play a role in governing our approach to problems, differences in attribution styles regarding a problem's cause and solution may be equated with differences in coping styles. Given that many forms of help or support may be considered "social," particular facets of support are likely to be quite compatible with an individual's attribution style.

Support Groups

A popular means of obtaining social support is through support groups. A variety of such groups have been established to assist people in dealing with problems such as major losses (e.g., death of a family member, separation, divorce), illness (e.g., Alzheimer's disease, diabetes, strokes, cancer), and personal problems (e.g., alcoholism, gambling, compulsive sexuality). Most support groups are likely to be sought out only after a stressor is present.
Also, there usually tends to be a match between the perceived demand created by the stressor and the type of support that is sought. Furthermore, the demands one perceives in relation to a stressor are likely a function of one's beliefs regarding that stressor and what may be needed to overcome or deal with it (cf., Rabinowitz, 1978; Brickman et al., 1982). Once again, one's attributions regarding the problem and its solution are a factor in determining how individuals go about seeking help for a particular problem.

Support groups can afford many opportunities to individuals who are experiencing difficulties in their lives. In addition to the specific forms of social support that are furnished, groups can also provide people with some information regarding the relative severity of their problem. Individuals may discover that others have it worse than they do. Consequently, they may not feel as bad as they did originally. In other words, support groups may give people the opportunity for social comparison.

Social Comparison

The Original Theory

Festinger's (1954) original theory of social comparison processes states that humans have a drive to evaluate their opinions and abilities. When objective, non-social means are not available, people will evaluate their opinions and
abilities through comparison with others. Festinger believed that "given a range of possible persons for comparison, someone close to one’s own ability or opinion will be chosen for comparison" (p. 121). That is, a person will tend to compare with someone who is somewhat similar to oneself. Furthermore, he proposed the existence of a unidirectional drive toward improvement in the case of abilities. The reasoning behind this is that people somewhat better off than oneself would likely provide the most useful information to facilitate improvement on the dimension being compared.

**Downward Comparison**

Later modifications in social comparison theory have suggested that the unidirectional drive toward improvement is not applicable in all situations. In fact, the need to preserve or improve one’s self-esteem may take precedence over the need for self-improvement. Brickman and Bulman (1977) suggested that social comparison with someone who is doing better than oneself (i.e., upward comparison) may actually be aversive. They believed that this would be particularly true for people with low self-esteem. Such people would feel threatened by others who are doing much better than themselves and would actually tend to avoid contact with them. As a result, low self-esteem people
would prefer to compare with others who appear to be doing worse. This process has been referred to as "downward comparison."

Wills (1981) reviewed much of the literature in this area and concluded that downward comparison is most likely to occur when a person has experienced a decrease in subjective well-being. Following from this, a basic principle of downward comparison theory states that "persons can increase their subjective well-being through comparison with a less fortunate other" (p. 245). This principle further emphasizes the notion that downward comparison is generally more likely to occur when self-enhancement needs take precedence over self-evaluation needs.

Taylor, Wood and Lichtman (1983) provided anecdotal evidence of downward comparison among persons adjusting to threatening events such as injury, illness, and crime. The individuals these authors interviewed tended to compare themselves with others who had been more severely victimized. Realizing (or even imagining) that others were worse off had presumably led the victimized individuals to feel relatively lucky. Taylor et al. concluded, "The comparison of one's current situation against what could have happened seems to be a robust reaction to serious events" (p. 31). In an earlier study, Hakmiller (1966) also
showed that downward comparison occurs in response to threatening events. Furthermore, he also discovered that downward comparison actually lowered the anxiety level of the people who were threatened.

Modifications in downward comparison theory. Gibbons (1986) provided more direct evidence concerning the positive effects of downward comparison. His study revealed that depressed subjects reported a significant improvement in mood after reading about the misfortunes of another. Gibbons and Gerrard (1989) replicated these findings using high and low self-esteem as the independent variables. Interestingly, they also examined the question of exactly what constitutes "downward" in the downward comparison process. Specifically, the dimensions of problem severity - having major problems but adjusting well - vs. coping difficulty - having minor problems but adjusting poorly - were separately addressed. Low self-esteem subjects responded positively to reading about others who were having difficulty coping with minor problems. They also responded favorably to people who had severe problems but were coping well with them. However, high self-esteem subjects showed a significant mood improvement only in response to reading about another who had severe problems but was coping well with them. In other words, coping difficulty was the only
"downward" dimension to have a differential impact on high vs. low self-esteem subjects.

In conclusion, social comparison does not merely provide information about how well one is doing. It also provides information about how poorly others are doing. Either focus of social comparison is helpful depending upon the immediate needs of the individual. If self-improvement needs dominate, one would benefit most from comparison with a person who is somewhat better off than oneself (i.e., upward comparison). If self-enhancement or ego-improvement needs take precedence, downward comparison would provide the most relief to a person. Downward comparison would presumably be the preferred means of coping with negative events. Confrontation with a negative event would cause people to experience a threat to their self-esteem. Downward comparison would then help restore one's sense of well-being. Finally, individuals can passively take advantage of given opportunities for downward comparison or they can actively select (or even derogate) a person whom they perceive as worse off than themselves (cf., Wills, 1987).

In the context of support groups, more passive forms of downward comparison would be most prevalent. It is unlikely that people would join a support group with the intention of
finding others who are coping more poorly than they. However, this is often one of the consequences of membership in such a group. One is very likely to encounter individuals who exhibit varying degrees of success in coping with their problems. Affective reactions to hearing stories about others' coping success or failure may vary depending upon the observer's coping style. How one responds to others' problems would depend, in part, upon the type of information that one desires from other members of the support group. One's response may also depend upon certain characteristics of the comparison target. The manner in which a target person approaches his or her problems may help guide observers' attributions regarding the target's overall situation. This, in conjunction with one's attribution style, may affect one's reactions to hearing about how well the target is coping with his or her problems.

Summary

As stated earlier, attributions, social support, and social comparison are all means of coping with personal problems. Specifically, attributions give us a sense of understanding of our world. This understanding can be translated into feelings of control or empowerment, particularly during times of personal turmoil or loss. In
addition to the attributions that people make to cope with their situation, they may seek social support in their efforts to manage their problems. Social support can be provided in several forms. A common means of providing (and receiving) support is through a support group. Other key processes occur within a support group as people are receiving assistance with their problems. Social comparison is one such process. Comparisons can be used to evaluate how well people are doing in their efforts to improve themselves. They can also be used for self-enhancement purposes when people are feeling bad about themselves.

Individuals can adopt a particular attributional style or "model" to use in their attempts to cope with problem situations. These attributional styles may, in turn, influence one's perceptions and attitudes toward social support and, particularly, the use and preferred composition of support groups. Personal attributional styles may also affect one's feelings of personal control, self-esteem, and self-efficacy. Finally, one's personal attributional model may affect how one reacts, in a group setting, to hearing about how well (or how poorly) others are handling their problems. These are the issues that the present study proposes to address.
Overview

This study has two distinct components or phases. First, the relationship between individual differences in attributional style, one's preferences for (and willingness to utilize) social support, and several other coping-relevant variables will be examined. The differences in attributional style are based on the models of coping and helping presented by Brickman et al. (1982) in which a distinction is made between attribution of responsibility for causing a problem and attribution of responsibility for solving a problem. As mentioned earlier, these two dimensions of responsibility attribution produced four distinct models of helping and coping. These "models" are proposed to exist as individual attributional styles. Such differences have not been presented in previous research.

The second component of the study examines, in a quasi-support group setting, the affective consequences of social comparison. Different reactions were predicted depending on the subjects' and target's style of assigning responsibility for solving problems.

Both male and female subjects were included in this study. Prior to being asked to participate, subjects had completed a self-esteem measure (to be used as a dependent measure in the study). They also completed an attributional
style questionnaire that was designed to assess their general tendency to assign responsibility to themselves for causing and solving personal problems (cf., Brickman et al., 1982). This attributional style questionnaire also yielded a self-efficacy measure that was used as a dependent variable in the study. During the initial phase of the experimental session, small groups (n = 4) of subjects were led to believe that they would be participating in a simulated support group on college adjustment. They then completed questionnaires regarding how they viewed their problems and how helpful various types of members would be if they were to actually participate in a support group. They were also questioned regarding their willingness to utilize a support group on college adjustment. The relationship between these variables and subjects' attributional styles regarding the cause and solution to their problems was later assessed. Analyses of variance were performed using two levels (high vs. low) of each attributional style as independent variables.

Prior to the second phase of the study, subjects were asked to write a brief statement about their coping strategies and their degree of success in adjusting to college life. They were then presented with social comparison information in the form of a bogus statement.
indicating that a peer was either coping well or coping poorly in making the adjustment to college. Statements also varied according to the extent to which the author assumed responsibility for solving his or her problems. Subjects' mood states were assessed both before and after reading the bogus statement. The social comparison aspect of the study yielded a 2 (high vs. low subjects' attribution of responsibility for solving problems) X 2 (high vs. low targets' attribution of responsibility for solving problems) X 2 (upward vs. downward comparison) split-plot, repeated measures factorial design.

Predictions

I. PHASE I

A. INDIVIDUAL DIFFERENCES IN ATTRIBUTION STYLE

1. SELF-EFFICACY, SELF-ESTEEM, AND PERCEIVED CONTROL

Attributions of responsibility for solving personal problems will be positively related to self-efficacy and self-esteem. The reasoning here is that subjects who typically attribute responsibility for problems' solutions to themselves would also perceive themselves as being capable of solving their problems. Concomitantly, they would have high self-esteem and also perceive their situation as more controllable.
2. ATTRIBUTION STYLE AND SUPPORT GROUP PREFERENCES

Subjects' attribution style will be related to their preferences for co-members in a support group. This relationship will depend primarily upon a person's attributions of responsibility for the solution to a problem (cf., Brickman et al., 1982). Specifically, subjects who typically attribute the responsibility for their problems' solutions to themselves (i.e., high SOLUTION subjects) will prefer group members who would provide information, encouragement, and a reminder of their responsibility. Subjects who attribute responsibility for their problems' solutions to external agents (i.e., low SOLUTION subjects) will prefer group members who would provide direction, caretaking, and emotional (i.e., esteem) support.

3. ATTRIBUTION STYLE AND ATTITUDE TOWARD SUPPORT GROUPS

Subjects' attribution style of assigning responsibility for causes and solutions to problems will be related to their willingness to utilize support groups. There will be a main effect for SOLUTION in that high SOLUTION subjects will generally be quite willing to participate in a support group. High SOLUTION subjects who also tend to attribute the causes of problems to external factors (i.e., low CAUSE) will be the most willing participants. Since the latter group of subjects do not
blame themselves for their problems' causes, they would presumably find a support group to be least threatening.

II. PHASE II

A. ATTRIBUTION STYLE AND REACTIONS TO SOCIAL COMPARISON

1. DOWNWARD COMPARISON

Subjects' attributions of responsibility for their problems' solutions will be related to their affective reactions to upward and downward social comparison. In general, an improvement in mood following downward comparison would likely be observed (cf., Gibbons, 1986; Gibbons and Gerrard, 1989; Gibbons and Boney McCoy, in press).

2. INTERACTION EFFECTS

a) DC Conditions

Some of the effects of social comparison may be moderated by the type of target with whom the subjects compare themselves. That is, there will likely be a SOLUTION X Social Comparison X Target interaction. Specifically, high SOLUTION subjects who downward compare with another high SOLUTION person should not experience much benefit in terms of mood elevation. They would see themselves in a shared fate condition (cf., Wills, 1981) in that they too may encounter the same situation. All other DC groups will experience a general improvement in mood.
b) UC Conditions

High SOLUTION subjects who upwardly compare with a high SOLUTION target will experience a positive change in their mood. This would presumably be due to the consensual validation the subjects would receive regarding their own approach or style. Also, the most useful information could be obtained through such a comparison. Furthermore, low SOLUTION subjects who upwardly compare with a low SOLUTION target would believe that the same fate could befall them. This should lead to a general increase in mood. The remainder of the UC groups will experience no significant improvement in mood.
METHOD

Screening Instruments

Janis-Field Feelings of Inadequacy Scale

Approximately 700 undergraduate students completed the revised version (Eagly, 1967) of the Janis-Field Feelings of Inadequacy Scale (Janis & Field, 1959) during mass-testing sessions. This version of the scale contained 20 questions that were rated on a Likert scale (1-5). These items were also counterbalanced to adjust for acquiescent response sets. Ten items measured negative self-perceptions while 10 measured positive self-perceptions. High scores on the Janis-Field indicate low self-esteem.

Reliability and validity of the inventory. The Janis-Field inventory has been shown to be both reliable and valid. Eagly (1969) reported a split-half reliability coefficient of .88, whereas Skolnick and Shaw (1970) found that all but two of the individual items on the scale have significant correlations with the total test score ($r$s range from .34 to .80, $p < .05$). Hamilton (1971) demonstrated convergent validity between the Janis-Field inventory and measures of self-esteem obtained from the California Psychological Inventory and self-ratings.
Perceived Causes and Solutions to Problems (PCSP) Scale

Background and instructions. Subjects also completed the PCSP during mass-testing. This questionnaire was designed to measure one's attributional style concerning responsibility for the causes and solutions of one's problems. Four hypothetical problem situations were presented and respondents were instructed to: 1) read each situation and vividly imagine it happening to them; 2) decide what they believe would be the major cause of the situation if it did happen to them; 3) write down this cause in the blank provided; and 4) as honestly as possible, answer the questions about the cause and solution to the problem. With the exception of the added words "and solution" to step number four, these instructions are identical to those used by Peterson et al. (1982) in their attributional style questionnaire.

Hypothetical problem situations. The four hypothetical situations that were created by the author were presumed to be fairly common among college students. These four situations are: 1) "You have been finding it difficult to adjust to college life," 2) "You have been finding it difficult to make new friends," 3) "You have been feeling 'down' a lot more often than you think you should," and 4) "You cannot get all the work done that is expected of you."
As indicated above, each hypothetical situation was followed by a set of questions concerning its cause and solution.

Questions regarding cause of the problem. The three questions regarding the proposed cause of the hypothetical problems asked subjects to rate (on a 9-point scale) whether that cause was something that: 1) "reflects an aspect of yourself - reflects an aspect of the situation," 2) is "outside of you - inside of you," and 3) is "totally due to you - totally due to other people." The dimensions on the response scales were modeled after those used by Russell (1982).

Questions regarding the solution to the problem. There were seven questions about the problem's solution. Four were concerned with attributions of responsibility for the solution. In particular they questioned whether the solution was: 1) "inside of you - outside of you," 2) something for which "you are responsible - you are not responsible," 3) "others are responsible - others are not responsible," and 4) "you could be held responsible - you could not be held responsible." Three of the solution-oriented questions were concerned with subjects' perceptions of self-efficacy. That is, respondents were asked to rate whether the solution was something: 1) that "you could hope to accomplish - you could not hope to accomplish," 2) that
"you are likely to accomplish - you are not likely to accomplish," and 3) for which "you have the needed skills - you do not have the needed skills." Responses were made on 9-point scales.

Question regarding the existence of the problem.
Finally, there was a question that asked subjects to rate to what extent the proposed situation was actually a problem for them. This would give some indication about the personal relevance or significance of any given problem situation. As with the questions regarding the cause and solution, all ratings were made on a 9-point scale.

Scale scores. Three scale scores were obtained by summing the appropriate items in the PCSP questionnaire: "CAUSE" - a measure of self-attribution of responsibility for the cause of one's problems, "SOLUTION" - a measure of self-attribution of responsibility for the solutions to one's problems, and "EFFICACY" - a self-efficacy measure. Preliminary administrations of the PCSP yielded ranges of 28 to 107 for the CAUSE scale ($M = 68.75, SD = 14.49$) and 45 to 144 for the SOLUTION scale ($M = 104.99, SD = 18.47$).

Reliability of the PCSP. Since the PCSP is a newly developed scale, certain psychometric properties needed to be examined. Prior to use of the PCSP in the present study, pilot research on 60 subjects was conducted to assess the
questionnaire's reliability. This analysis indicated that the three scales were internally consistent. Chronbach alphas for CAUSE, SOLUTION, and EFFICACY were .79, .87, and .81 respectively. In an additional pilot study, 55 subjects were retested on the PCSP four weeks following the first administration. Test-retest reliability coefficients for CAUSE, SOLUTION, and EFFICACY were .60, .60, and .23 respectively. These coefficients are moderate (cf., Brown, 1983) and suggest that CAUSE and SOLUTION reflect relatively enduring individual traits. However, the EFFICACY scale did not appear to be consistent over time.

Subjects

One hundred and thirty-one subjects were selected from the mass-testing pool for participation in this study. Only those students who scored four or greater (out of a maximum of nine) on the PCSP item that asked whether adjustment to college was actually a problem for them were asked to participate in the study ($M = 6.2$). Individuals who were actually experiencing difficulty adjusting to college would presumably be more concerned about their coping abilities and how well they are doing vis-a-vis others.

Once this selection had occurred, subjects were further classified as high or low in their attributions of responsibility for their problems' causes and solutions.
(based on extreme groups - top and bottom 33% - splits of the CAUSE and SOLUTION scores on the PCSP questionnaire). The difference between "high" and "low" groups would therefore be more clearly marked regarding a particular trait. This would help clarify the analysis of various aspects of this study. The data for three subjects were discarded due to suspicion about the veracity of the social comparison information they received. The remaining 128 subjects (59 males, 69 females) were included in the final analysis. The amount of time that elapsed between mass-testing and participation in the study ranged from four to 48 days (M = 17 days). All subjects received one extra-credit point for their participation in the study.

**Procedure**

There were two major phases to the study. The first involved an examination of the relationship between individual differences in attributional style (i.e., CAUSE, SOLUTION) and several variables that were assessed either during or prior to the experimental session. These variables were: support group membership preference, attitudes regarding participation in a support group, self-efficacy, self-esteem, and perceived control of personal problems. The second phase of the study involved an investigation of how the subjects' and target's style of
assigning responsibility for solving problems affected the subjects' mood changes following social comparison with a peer regarding his or her adjustment to college life.

Introduction to the Study

Subjects were run in same-sexed groups of four. Prior to beginning the study, the experimenter greeted the participants and informed them regarding the general purpose of the research. Specifically, subjects were told that the study was interested in looking at how support groups can best be used to help people cope with certain problems. Subjects were also told that the research would be investigating the types of people who are most likely to be helped by support groups. Finally, they were reminded that, although we did not have the time to run an actual support group, we could attempt to simulate some of the conditions that we would expect to find in one. The precise method by which a support group would be simulated was not specified.

Each subject was given an Informed Consent Statement (ICS) which reiterated that the purpose of the study was to investigate how support groups can help people deal with problems they face in their adjustment to college life. Participants were informed that they would be asked questions about themselves, their adjustment to college, and their adjustment strategies. Subjects were also informed
that they would be asked to share some information about themselves with other participants in the study. Finally, subjects were told that other students participating in the study would vary regarding how well they were coping with their personal problems. The latter statement was purposely designed to allow for both downward and upward social comparison.

After subjects read and signed the ICS, they were asked to introduce themselves by giving their first name, year in school, and major area of study (if decided). Following the introductions, subjects were then led into separate cubicles. They remained there until the experimental session was completed.

Phase I -- Initial Questionnaires

Self-description questionnaire. Once the subjects had enough time to accommodate to their new surroundings, they were asked to complete a Self-Description questionnaire which pertained to their perceptions of their own situation. Specifically, they were asked: 1) "How well do you think you are coping with the problems you are facing, relative to the typical student at ISU?", 2) "In comparison with other students, how are things going for you?", 3) "Do you think your coping or adjustment capabilities will improve in the future?", and 4) "In general, do you believe your problems
are controllable?" Each question was followed by a 9-point scale with appropriate anchors at either end (e.g., definitely not - definitely yes). Questions 1 and 2 were intended to prime subjects for social comparison. Questions 3 and 4 were designed to assess the relationship between attributional style and related beliefs regarding one's problems and coping abilities.

**Discussion group composition questionnaire.** The self-description questionnaire was followed by a Discussion Group Composition questionnaire which asked subjects to rate their preferences for particular types of people to be in a discussion group with them if they were to participate in one (for there was no actual commitment to do so). Many of the particular items were designed to represent each of the facets of social support that were proposed by Wortman and Conway (1985). Specifically, each subject rated on a 9-point scale (i.e., "Not at all Helpful" - "Very Helpful") his or her opinion about how helpful a group would be in which members: 1) "tell me it's okay to feel the way I do," 2) "provide 'common sense' advice," 3) "give me information about the cause of my problems," 4) "remind me that I must take responsibility for myself," 5) "provide expert-like advice regarding overcoming my problems," 6) "take me 'under their wing'," 7) "keep my mind off my problems," 8) "tell me
step-by-step what I should do," 9) "agree with my thoughts and opinions," 10) "are willing to lend me money or other items," 11) "tell me that I am not the only one who feels as I do," 12) "encourage me to forget about myself and think of others," and 13) "remind me that sometimes life is unfair and unjust." Within this questionnaire, subjects were also asked: "In general, how useful do you think support groups are in helping people overcome problems?" and "Would you be interested in participating in a support/discussion group on college adjustment?" These items were designed to help assess the relationship between attributional style (i.e., CAUSE and SOLUTION) and attitudes regarding support groups.

Adjustment description statement. Subjects were then asked to complete an Adjustment Description Statement (ADS) in which they provided written information about 1) the coping strategies they use in adjusting to personal problems, and 2) how well they are actually adjusting to college life (cf., Gibbons & Gerrard, 1989). This statement was intended to make salient their own coping strategies (i.e., attribution styles) as well as to remind them of the adjustment problems that they are currently facing. The statement also provided a manipulation and encouraged the use of downward comparison (cf., Wills, 1981, 1987). The statement read as follows:
"There is no question that everyone has their own 'style' of dealing with personal problems. That is, everyone has his or her own belief about what is the best way to face problems when they occur. Also, almost everyone has experienced some sort of difficulty adjusting to the many demands of college life.

In the space below, we would like you to describe: 1) what approach you typically have used to cope with your personal problems (e.g., whether you rely upon yourself or look for help from others, whether you wait for events to develop or respond immediately) and, 2) how well you feel you are actually doing with any problems you may have in adjusting to college life.

It is very important that you be as honest as possible when answering these questions."

Subjects were given ten minutes to complete their ADS's. After the allotted time, the statements were collected and the subjects' current mood was assessed.

Affect questionnaire. The initial mood scale consisted of eight adjectives from the Multiple Affect Adjective Checklist (Zuckerman & Lubin, 1965), four of which were positive (happy, hopeful, joyful, and pleased) and four negative (discontent, insecure, tense, and discouraged). All adjectives had anchors of "not at all" and "very" at either end. There was an additional question that asked subjects to rate their overall mood (Very Positive - Very Negative). All items were followed by a 9-point scale.

Phase II -- Statement Manipulation

When the subjects had completed all of the initial questionnaires, they were reminded that they were going to
share some information about themselves (as part of the "simulated" support group). Subjects were then told that "to facilitate the process" they would exchange the information they had written on their ADS's with another participant in the study (cf., Gibbons & Gerrard, 1989). Apologies were made for the artificial nature of this exchange but subjects were assured that, for experimental purposes, this was adequate. Finally, subjects were told that to protect confidentiality we would randomly distribute the statements. In this way, nobody would know whose statements they were reading.

Actually, subjects received one of four bogus statements. These statements varied on two dimensions. First, the other "participant" either attributed responsibility for overcoming problems to him/herself (e.g., "I feel that everyone should at least attempt to work out their problems before asking for any help," "I guess I've learned early that the only person to rely on is yourself") or to external factors (e.g., "I think a lot of things must just come down to fate or luck...", "I really believe that someone or something - like a higher power - is watching over me"). Second, the statements varied according to whether the supposed author was either adjusting well to college (e.g., "I have to say that I'm doing fine making the
'adjustment' to college life right now. Everything is going well in my classes...") or adjusting poorly (e.g., "I can't figure out why I don't seem to be doing well now," "Most things just seem to bother me").

Specifically, each subject read one of the following descriptions: a) a high SOLUTION target who was coping well, b) a high SOLUTION target who was coping poorly, c) a low SOLUTION target who was coping well, or d) a low SOLUTION target who was coping poorly. Two independent variables - target attribution style and social comparison direction - were therefore manipulated within each statement.

Pilot of the bogus statements. Prior to using the bogus statements in the present study, each was piloted using an independent group of students (N = 114). Subjects rated the statements regarding how well the target was coping with his/her problems; how optimistic or pessimistic their tone was; and, in comparison to themselves, how well things were going for that person. The people who allegedly were having difficulty making the adjustment to college were viewed as coping more poorly, more pessimistic, and doing much worse in comparison to oneself than were those who wrote of adjusting well to college life (all Fs > 27.86, ps < .001). Also, the attribution style of the statement's author did not have a significant effect on how the
statements were rated (all $F < 2.78, p > .10$). Therefore, the direction of the social comparison (UC vs. DC) was solely a function of the target's success in adjusting to college (and not his or her coping strategies).

**Post-Statement Questionnaires**

Adjustment description statement questionnaire. After the subjects were given time (three minutes) to read the bogus ADS, they were asked to complete the Adjustment Description Statement Questionnaire. This was actually a manipulation check used to ensure that the subjects perceived the target's relative degree of adjustment as expected. In particular, subjects were asked the following questions: 1) "How well do you think this person is coping with his/her problems?", 2) "What was the tone of his/her statement?", and 3) "In comparison to yourself, how well do you think things are going for this person?" This last question was designed to encourage subjects to engage in social comparison. Each question was followed by a 9-point scale (e.g., much better - much worse).

Second mood assessment. Finally, subjects were asked to complete another Mood Scale consisting of eight adjectives that were polar opposites to the ones presented in the first mood scale (i.e., calm, content, secure, and encouraged; hopeless, depressed, sad, and displeased). The
use of adjectives that were opposites of those measured by the first mood scale would be less likely to arouse suspicion about any attempts to assess mood change. As in the initial mood assessment, subjects were also asked to rate their overall mood. Changes in mood states as a result of social comparison were measured by comparing the subjects' moods before and after the statement manipulation (cf., Gibbons & Gerrard, 1989; Gibbons & Boney McCoy, in press).

Debriefing

Before being dismissed, subjects were informed about the exact purpose of the study. Specifically, they were told that the research was looking at how the amount of responsibility they take for their problems affects their willingness to use support groups and their reactions to hearing of others' problems. Subjects were then debriefed as to the nature of the deception. That is, they were told that in order to reach any firm conclusions, we needed to have some control over what they read. They were also informed about how the bogus statements actually varied. Subjects were then questioned regarding any suspicions about the statements and, if so, how strong those suspicions were. Finally, they were reminded not to tell anyone about the
details of the experiment and were awarded their extra credit point.
RESULTS

Preliminary Measures

PCSP scale group means. As mentioned previously, subjects for this study were selected based on an extreme groups split (i.e., top and bottom 33%) on their CAUSE and SOLUTION scores on the PCSP questionnaire. The means for the low and high CAUSE groups were 55.09 (range: 41-62) and 79.15 (range: 70-107) respectively. The means for the low and high SOLUTION groups were 88.08 (range: 59-101) and 119.84 (range: 109-144) respectively.

Self-description items. There were no significant differences between high and low SOLUTION subjects on the following dimensions: how well they were coping with their problems relative to the typical student, how well things were going for them in comparison to other students, and whether they thought their adjustment capabilities would improve in the future (all $F$s < 2.7, $p$s > .10). However, as predicted, high SOLUTION subjects perceived their problems as significantly more controllable than did low SOLUTION subjects ($M$s = 2.19 vs. 2.83; $F$ [1,120] = 8.87, $p < .004$).

Mood indexes. Intercorrelations of the positive and negative adjectives on both mood indexes suggested that they had good internal consistency (for positive adjectives: minimum alpha = .76, $M$ alpha = .79; for negative adjectives: ...
minimum alpha = .75, H alpha = .80). The individual adjectives were therefore combined by summing the scores and dividing the total by four (the number of adjectives in each group). Furthermore, the combined adjectives were highly correlated with the subjects' ratings of their overall mood both before and after social comparison (rs = .82 and .84, ps < .001). The strong relationship between the combined adjectives and overall mood state justified the additional combination of these two measures into a single mood index. This was achieved by summing the averaged adjective index with the overall mood index.

An analysis of variance was performed on the first mood index (Mood 1). As expected, the attribution style of the subjects (high vs. low SOLUTION), social comparison conditions (UC vs. DC), and attribution style of the target (high vs. low SOLUTION) had no significant effect on subjects' initial mood state (all ps > .42).

PCSP Measures and Self-Esteem

The matrix of correlations between CAUSE, SOLUTION, EFFICACY, and Janis-Field (self-esteem) scores are presented in Table 1. As predicted, there was a positive relationship between subjects' SOLUTION and EFFICACY scores. However, the anticipated relationship between SOLUTION and self-esteem was not present. CAUSE was negatively related and
EFFICACY was positively related to subjects’ self-esteem scores (all ps < .007).

Table 1
Pearson Correlations Between Subjects’ CAUSE, SOLUTION, EFFICACY, and Self-esteem Scores

<table>
<thead>
<tr>
<th></th>
<th>CAUSE</th>
<th>SOLUTION</th>
<th>EFFICACY</th>
<th>Self-esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUSE</td>
<td>--</td>
<td>.59b</td>
<td>.22a</td>
<td>-.36b</td>
</tr>
<tr>
<td>SOLUTION</td>
<td>--</td>
<td>.67b</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>EFFICACY</td>
<td></td>
<td></td>
<td>.38b</td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
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</tbody>
</table>

Note. Ms range from 125 to 128.

PCSP Measures and Discussion Group Preferences

Factor analysis of Discussion Group Composition items. The 15 Discussion Group Composition items were factor analyzed using Varimax rotation. This produced four orthogonal factors (all Eigenvalues > 1.2; 58% of total variance accounted for). The purpose of the factor analysis was to facilitate interpretation of the relationship between CAUSE, SOLUTION, and the various Discussion Group Composition items that asked subjects to rate their preferences for various group members. Separate analysis of
each item would have been too cumbersome and may have yielded some spuriously significant results. The two items that questioned subjects regarding their perceptions of support groups in general were also included in the factor analysis. Although there was an orthogonal solution to the factor analysis, the subsequent analysis was oblique in that items with high factor loadings were summed to produce factor scores (see Table 2). The factor scores were therefore correlated with one another.

Factor I was composed of 10 out of the 15 items on the Discussion Group Composition questionnaire. This factor accounted for 27.8% of the total variance and represents what may be referred to as Group Interest. Factor II contained items that emphasized the desire for care-taking and direction, without any expectation of reciprocity or responsibility being placed upon the individual. This factor accounted for 12.5% of the total variance and may be referred to as Nurturance. Factor III contained items that reflected general Encouragement. For example, these items stressed a preference for group members who tell us that we must take responsibility for ourselves while also reminding us that we are not the only ones who feel as we do. This factor accounted for 9.7% of the total variance. Factor IV was composed of items that reflected a desire for
information about the cause of one's problems and suggestions for overcoming them. This factor accounted for 8.0% of the total variance and may simply be referred to as Information.

As alluded to above, the Group Interest factor contained most of the items in the Discussion Group Composition questionnaire. The remaining three factors could essentially be subsumed under this primary factor. Also, there was some minor overlap between items included in the Nurturance, Encouragement, and Information factor scores. Correlations between the various factors ranged from .18 (between Factors II and IV) to .70 (between Factors I and II). Still, they were different enough conceptually to warrant separate identification as factors.
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loadings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tell me it's okay to feel the way I do</td>
<td>.73</td>
<td>.29</td>
</tr>
<tr>
<td>provide &quot;common sense&quot; advice</td>
<td>.30</td>
<td>.34</td>
</tr>
<tr>
<td>give me information about the cause of my problems</td>
<td>.60</td>
<td>-.23</td>
</tr>
<tr>
<td>remind me that I must take responsibility for myself</td>
<td>.21</td>
<td>.31</td>
</tr>
<tr>
<td>provide expert-like advice regarding overcoming my problems</td>
<td>.26</td>
<td>.51</td>
</tr>
<tr>
<td>take my &quot;under their wing&quot;</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>keep my mind off my problems</td>
<td>.30</td>
<td>.47</td>
</tr>
<tr>
<td>tell me step-by-step what I should do</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>agree with my thoughts and opinions</td>
<td>.28</td>
<td>.62</td>
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</table>
are willing to lend money or other items .53 .42

tell me that I am not the only one who feels as I do .67 .37

courage me to forget about myself and think of others .77

remind me that sometimes life is unfair and unjust .72

How useful do you think support groups are in helping people overcome problems? .78 .20

Would you be interested in participating in a support/discussion group on college adjustment? .54
PCSP variables and discussion group composition factors. Analysis of variance on the first three factors yielded no significant main effects or interactions for sex, CAUSE, or SOLUTION (all $F$s $< 1.92$, $p$s $> .17$). Therefore, neither the anticipated positive relationship between SOLUTION and Factor 3 (Encouragement) nor the negative relationship between SOLUTION and Factor 2 (Nurturance) were observed. However, an ANOVA on Factor IV (Information) revealed a main effect for SOLUTION and a marginally significant main effect for CAUSE ($F$s [1,118] = 3.62 and 4.24, $p$s $< .05$ and .06, respectively). These main effects were in the opposite direction from one another in that low CAUSE and high SOLUTION subjects expressed the desire for group members that would provide Information ($M$s = 31.70 vs 30.58, 30.41 vs. 31.85, respectively; see Tables 3 and 4). These findings were predicted for high SOLUTION subjects but were unexpected with low CAUSE subjects. There were no significant interactions.
Table 3
Ratings on Discussion Group Composition As a Function of CAUSE

<table>
<thead>
<tr>
<th>CAUSE</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Interest</td>
<td>61.46</td>
<td>61.30</td>
</tr>
<tr>
<td>Nurturance</td>
<td>36.93</td>
<td>36.40</td>
</tr>
<tr>
<td>Encouragement</td>
<td>43.71</td>
<td>43.58</td>
</tr>
<tr>
<td>Information</td>
<td>31.70</td>
<td>30.58*</td>
</tr>
</tbody>
</table>

(n=69)  (n=59)

Note. High scores on each factor indicates a greater preference for that particular form of support. Difference between high and low CAUSE groups on this factor is significant at .05 level.
Table 4
Ratings on Discussion Group Composition As a Function of SOLUTION

<table>
<thead>
<tr>
<th>SOLUTION</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Interest</td>
<td>60.52</td>
<td>62.13</td>
</tr>
<tr>
<td>Nurturance</td>
<td>37.02</td>
<td>36.41</td>
</tr>
<tr>
<td>Encouragement</td>
<td>42.69</td>
<td>44.47</td>
</tr>
<tr>
<td>Information</td>
<td>30.41</td>
<td>31.85*</td>
</tr>
</tbody>
</table>

*(n=58) (n=68)*

Note. High scores on each factor indicates a greater preference for that particular form of support. The difference between high and low SOLUTION groups on this factor is significant at .05 level.

PCSP Variables and Attitudes Toward Support Groups

Two of the Discussion Group Composition items asked subjects to rate the perceived usefulness of support groups in helping people overcome problems, and whether they would be interested in participating in a discussion group on college adjustment. Since it was predicted that high SOLUTION (especially if they were also low CAUSE) subjects would be most willing to participate in a support group,
these items were analyzed separately. There were no significant main effects or interactions for sex, CAUSE, or SOLUTION, however (all $f$s < 1.78, $p$s > .18).

Summary

As predicted, SOLUTION scores were positively related to self-efficacy and perceived controllability of problems. SOLUTION was unrelated to self-esteem, however. High SOLUTION subjects, as predicted, preferred group members who provided information about the cause and solution to one's problems. An unexpected finding was that low CAUSE subjects also showed a preference for group members who provided information. The hypothesis that low SOLUTION subjects would prefer direction, care-taking, and emotional support was not supported. Finally, the predicted relationship between CAUSE, SOLUTION, and willingness to utilize support/discussion groups was not found.

Phase II

PCSP Variables and Reactions to Social Comparison

Manipulation check. There was a main effect for social comparison on all three of the Adjustment Description Statement Questionnaire items, indicating that the manipulation was successful. The tone of the downward comparison (DC) target person's ADS was seen as significantly more negative than was the upward comparison
More important in terms of social comparison, the DC target people were seen as coping more poorly with their problems ($F [1,126] = 241.15, p < .001$) and doing much worse in comparison to the subjects ($F [1,126] = 81.48, p < .001$).

There were no differences on these measures due to the attribution styles of the subject or the social comparison target ($Fs < 1.90, ps > .17$).

**Mood change.** A Sex X SOLUTION (high vs. low) X Social Comparison (UC vs. DC) X Target (high vs. low SOLUTION) X Time repeated measures ANOVA revealed no main effects or interactions involving Sex ($F s < 1.22, ps > .27$). Although no differences were predicted, these analyses were performed to ensure that sex was not a factor in the obtained results. Therefore, only the results from the SOLUTION X Social Comparison X Target X Time repeated measures ANOVA will be reported. This analysis did reveal a significant Social Comparison X Time interaction in that UC subjects showed a greater improvement in mood from Time 1 to Time 2 than did DC subjects ($F [1,116] = 8.51, p < .004$). The anticipated general improvement in mood following DC was not observed.

As predicted, there was a significant SOLUTION X Social Comparison X Target X Time interaction ($F [1,116] = 4.41, p < .04$; see Table 5). The positive change in mood observed
in high SOLUTION subjects following UC with a high SOLUTION target was expected. Within cells comparisons using the error term from the repeated measures analysis (Winer, 1971) indicated that the change from Time 1 to Time 2 was significant for this group ($M = 1.39; t_{116} = 2.48, p < .05$).

Table 5
Mood Change Following Social Comparison as a Function of Subject's and Target's Attribution of Responsibility for Solving Personal Problems

<table>
<thead>
<tr>
<th>SOCIAL COMPARISON</th>
<th>UC</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJECT'S RESPONSIBILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTRIBUTION</td>
<td>HI</td>
<td>LO</td>
</tr>
<tr>
<td>TARGET</td>
<td>HI</td>
<td>LO</td>
</tr>
<tr>
<td>Time 1</td>
<td>9.78</td>
<td>9.54</td>
</tr>
<tr>
<td>Difference</td>
<td>$1.39^a$</td>
<td>$1.89^b$</td>
</tr>
</tbody>
</table>

Note. $N$s range from 14 to 18.
$^a$Mean difference score is significant at .05 level.
$^b$Mean difference score is significant at .01 level.
High SOLUTION subjects who downward compared with a high SOLUTION target showed a slight but insignificant increase in mood from Time 1 to Time 2 ($M = .77; t [116] = 1.4, p > .10$). It was predicted that this condition would not produce a significant change in mood. However, contrary to prediction, low SOLUTION subjects did not show a significant improvement in their mood after UC with a low SOLUTION target ($M = .97; t [116] = 1.6, p > .10$). In fact, the latter group was the only UC group that did not produce a significant positive change in mood from Time 1 to Time 2.

A secondary analysis was performed to assess the significance of mood change between Time 1 and Time 2. This involved an analysis of variance on Mood 2 using Mood 1 as a covariate. The purpose of this analysis was to account for any possible differences between groups at Time 1. If such differences did exist, any observed mood change could simply be the result of regression toward the mean. However, the results from this analysis were the same as those obtained from the repeated measures analysis. It revealed a similar main effect for social comparison ($F [1,115] = 9.25, p < .004$) as well as the SOLVING X Social Comparison X Target interaction found earlier ($F [1,115] = 4.42, p < .04$).
Optimism and Mood Change Following Social Comparison

Although there were no specific predictions about how subjects' optimism regarding their adjustment capabilities would influence their reactions to social comparison, a post hoc analysis of this question was performed. The rationale was that this analysis would help clarify the finding that UC led to an improvement in mood over time. Such an analysis has not been done in previous research. "Optimism" was defined as the subjects' belief that their coping or adjustment capabilities will improve in the future. This variable was derived from a median split on the Self-Description Questionnaire item that had specifically asked subjects to rate whether their adjustment capabilities would improve in the future.

While no main effects or interactions involving the combined mood index were found, there was a significant Optimism X Social Comparison X Time interaction on subjects' ratings of overall mood \( F [1,108] = 5.04, p < .03 \). High-optimism subjects showed an improvement in overall mood after UC \( (M = .44; t [108] = 2.44, p < .05) \) but a decrease in mood after DC \( (M = -.34; t [108] = 2.12, p < .05) \). An analysis of covariance on overall Mood 2 using overall Mood 1 as a covariate revealed the same Optimism X Social Comparison interaction \( F [1,108] = 4.02, p < .05 \).
Summary

The predicted general improvement in mood following downward comparison was not observed. Subjects did demonstrate a general increase in mood over time following upward comparison, however. A SOLUTION X Social Comparison X Target X Time interaction was found as predicted. High SOLUTION subjects who upwardly compared with a high SOLUTION target experienced a positive change in mood. However, low SOLUTION subjects who upwardly compared with a low SOLUTION target did not demonstrate a significantly positive change in mood as was predicted. The hypothesis that high SOLUTION subjects would not experience a significant increase in mood following DC with a high SOLUTION target was confirmed.

Post hoc analysis revealed a significant Optimism X Social Comparison X Time interaction on subjects' ratings of overall mood. High optimism subjects showed an improvement in mood following UC while showing a decrease in mood after DC.
DISCUSSION

Some of the relationships between attribution styles, social support, and social comparison have been presented. The meaning of these results needs further elaboration, however. Various aspects of the attribution style questionnaire (PCSP) scales will first be discussed. The role of attribution style in the affective consequences of social comparison will then be examined. Finally, the general implications of the present findings will be discussed.

PCSP Variables

Individual Differences

The moderately high test-retest reliability that was obtained during the pre-experimental session suggests that the CAUSE and SOLUTION subscales of the PCSP questionnaire reflect relatively enduring traits. However, the EFFICACY subscale did not prove to be stable over time. It is possible that a person’s feelings of self-efficacy in confronting a problem may be more dependent on situational variables (e.g., mood state, availability of resources, physical health, social support network) than on dispositional variables.

The reliability of the SOLUTION variable is encouraging in that no previous research has suggested the presence of
an attributional style for assigning responsibility for solving problems to oneself. The focus has primarily been on individual differences in causal attributions (c.f., Peterson et al., 1982; Anderson & Arnoult, 1985a, 1985b). Whereas Brickman et al. (1982) did present models that addressed one's attribution of responsibility for the solution to problems, they did not suggest that this would exist as an attributional style.

Although several of the subjects in the present study tended to score high on CAUSE and low on SOLUTION (or vice versa), the two variables were highly correlated. That is, people high on one variable were also very likely to score high on the other. In terms of the "models" presented by Brickman et al., the present study suggests that the moral model (i.e., high CAUSE/high SOLUTION) and medical model (i.e., low CAUSE/low SOLUTION) would be most prevalent while the enlightenment (i.e., high CAUSE/low SOLUTION) and compensatory (i.e., low CAUSE/high SOLUTION) models would not be frequently observed in individuals.

The Relationship Between SOLUTION and EFFICACY

As expected, there was a strong positive relationship between one's SOLUTION and EFFICACY scores. Subjects who assigned responsibility for solving problems to themselves also perceived themselves as possessing the skills needed to
solve their problems. Of course, it is difficult to ascertain the precise nature of this relationship. If people assume responsibility for solving their problems, they may also be motivated to acquire the skills necessary for dealing with those problems. Conversely, if people know that they have the skills needed to overcome their problems, they may be more willing to assume responsibility for solving them. In any case, the expectation of control is very important to both EFFICACY and SOLUTION (cf., Bandura, 1977). This conclusion was supported, in part, by the current study. High SOLUTION people perceived their problems as being significantly more controllable than did low SOLUTION people.

PCSP Variables and Self-Esteem

EFFICACY and self-esteem were positively related. This finding is not surprising since it was expected that people who see themselves as able to overcome various problem situations would also feel positive about themselves in general. However, the expected relationship between SOLUTION and self-esteem was not found. In fact, the correlation between the two variables was essentially zero. It appears that people are as likely to feel good as they are bad about themselves while assuming responsibility for solving their problems. Although high SOLUTION people
generally believe that they have the needed skills to overcome their problems, some may also feel upset with themselves for *having* to deal with certain problems.

This finding may be better understood in light of the relationship between CAUSE and self-esteem. Here, the two variables are negatively correlated. Attributing the cause of problems to oneself is associated with low self-esteem. These results are similar to those found in studies of depressive attributional styles (e.g., Seligman et al., 1979; Anderson & Arnoult, 1985a, 1985b). These authors had found that depressed individuals tended to attribute negative events to internal characteristics. The mechanism underlying the relationship between CAUSE and self-esteem may be similar in that people who attribute a problem's cause to themselves are attributing that problem to characteristics that are internal. However, it is not clear in the present research if high CAUSE individuals were also attributing their problem's cause to global or stable characteristics (cf., Seligman et al., 1979).

**PCSP and Discussion Group Composition Variables**

**General factors.** Four factors were extracted from the 15 discussion group composition variables. Three of these factors - Nurturance, Encouragement, and Information - correspond quite well to the distinction that Schaefer,
Coyne, and Lazarus (1981) made between tangible, emotional, and informational support respectively. This may well be the most parsimonious categorization of the various forms of social support.

**PCSP variables and information.** The Information factor was the only one on which high and low CAUSE and SOLUTION subjects varied. High CAUSE subjects did not desire to receive information about the cause or solution to their problem while high SOLUTION subjects welcomed such information. Whereas it may be self-evident that high SOLUTION people would prefer to seek information that could be useful to them, it is not very clear why high CAUSE people may avoid similar information. High CAUSE individuals may not want to be burdened with information about the cause of their problem. Such information may simply be a reminder of how they are responsible for creating their own problems. In this case, they may want to be spared the details and simply have their problems resolved.

**Attitudes toward support groups.** Subjects' sex, CAUSE attribution style, and SOLUTION attribution style had no effect on whether they perceived support groups to be useful. These variables also had no bearing on subjects' willingness to participate in a support group on college
adjustment. Although sex was not proposed as a variable of interest in this study, it would still likely be a factor in determining whether a person was willing to utilize a support or discussion group. In fact, one of the most consistent findings regarding social support is that females are much more likely to utilize support than are males (McMullen & Gross, 1983; Defares, Brandjes, Nass & van der Ploeg, 1985; Sarason, Sarason & Shearin, 1986). It is unclear why the present study did not find similar results.

As stated above, neither CAUSE nor SOLUTION played a significant role in whether subjects perceived support groups to be useful or whether they were willing to participate in a support group. One reason for the lack of results in these areas may be that "responsibility" can take on different meanings in terms of solving personal problems. The multiplicity of meanings would particularly affect the manner in which individuals could assume responsibility for solving their problems. For example, low SOLUTION people may still wish to participate in a support group in hope of finding someone or something (other than oneself) to provide extemporaneous relief for their suffering. They could also quietly obtain material assistance from their parents or close friends. On the other hand, high SOLUTION people could believe they are ultimately responsible for their
problems but still seek the appropriate people to provide encouragement or information. There appear to be many methods by which a person can either assume or avoid responsibility for solving personal problems. Ostensibly similar behaviors could, upon closer examination, reflect quite different intentions on the part of the actor. One's attribution style would therefore not be clearly evident based on one's attitudes toward support groups.

**Validity of the PCSP**

As mentioned earlier, the PCSP scales have been shown to be internally consistent. Furthermore, the CAUSE and SOLUTION scales were fairly reliable over time. The results of the present study have also demonstrated that these scales have some criterion-related validity in that high SOLUTION or low CAUSE individuals were more likely to prefer group members who provided information about the causes and solutions to one's problems. In addition to this, high CAUSE individuals were more likely to have lower self-esteem than low CAUSE individuals. Further research may reveal additional ways in which the PCSP scales may be related to other behaviors, personality measures, or self-ratings.
Social Comparison

Upward vs. Downward Comparison

The general improvement in mood that was observed among subjects following upward comparison was quite unexpected. The only UC group that did not exhibit a significant increase in mood at Time 2 was the low SOLUTION group who upwardly compared with low SOLUTION targets. None of the downward comparison groups showed a significant improvement in their mood. These results are the opposite of those observed in previous research on social comparison in that, following a threat, subjects' moods typically improved after DC (cf., Gibbons, 1986; Gibbons & Gerrard, 1989; Gibbons & Boney McCoy, in press). The present study had all subjects write about their adjustment to college life (cf., Gibbons & Gerrard, 1989). Any reminder to the participants about the difficulties they were facing would presumably have subjected them to mild threat. Many of the subjects should therefore have experienced some relief after reading about others who were having more difficulty than they were in adjusting to college. This did not occur, however.

The present study had subjects write about their coping strategies as well as how well they were coping in general. Writing about coping strategies may have created a more positive focus than simply writing about adjustment
problems. Also, the threat presented in this study may have been much milder than that created in the Gibbons and Gerrard (1989) study. Gibbons and Gerrard specifically asked subjects to write about their coping difficulties whereas the present study had subjects write about how well they were doing with any problems they may be experiencing in their adjustment to college.

**Current threats vs. future struggles.** All of the subjects in the present study had, during screening, indicated that adjustment to college life was an actual problem for them. Some earlier studies did show that individuals experiencing problems such as breast cancer (Wood, Taylor & Lichtman, 1985) and physical handicap (Schulz & Decker, 1985) displayed a tendency to engage in downward comparison. By comparing with others who have had it worse, these people may have felt relatively lucky to have avoided similar misfortune. These field studies did not examine the impact of DC on one’s mood state, however. Furthermore, many of these studies focused on individuals who had already experienced a threatening or victimizing event.

The subjects in the present study may not only have been coping with a loss (e.g., moving away from familiar surroundings) but they may also be preparing to cope with
ongoing or anticipated stressors (e.g., difficult classes, thoughtless roommates). The "problems" faced by these subjects would not only be ones that they are in the midst of, but ones that they expected to deal with in the future as well.

The distinction between attempts to cope with recent threats and preparation to cope with future problems may be critical in evaluating the effects of social comparison on mood states. Focusing on the future would place more emphasis on self-improvement or adjustment needs than would focusing on recent threats. In this case, upward comparison would best suit the individual's coping needs. However, focusing on past threats would press an individual toward self-enhancement. He or she would then be more likely to engage in downward comparison.

Taylor, Buunk, and Aspinwall (1990) suggest that the affective consequences of social comparison may not be inherent in its direction. UC may inform us that we are not as well off as the target. It may also imply that things can, in fact, get better. Conversely, DC may not only tell us that we are not doing as poorly as others; it may also suggest that things could get worse than they now are. The subjects in the current study could likely have been encouraged by several of the UC conditions. They may have
been reminded that, by whatever means, their situation could improve. Furthermore, if a person is preparing to deal with an aversive situation, it would not be very helpful to hear about how difficult it was for others who had experienced similar circumstances.

Taylor and Lobel (1989) cited several studies that lend support to this argument. Whereas downward comparison (in the form of explicit self-evaluations) may meet certain self-enhancement needs, actual contact with less fortunate others may be quite discouraging. On the other hand, exposure to people who are coping well can provide a person with role models that meet problem-solving needs.

Actual or anticipated contact with successful copers may be quite encouraging and inspirational. In this sense, both emotional and informational needs of a person may be met. Subjects in the present study anticipated (and had) some contact with others in the form of a simulated support group. Since all of the participants were actually experiencing problems in their adjustment to college, they would presumably be interested in overcoming their adjustment difficulties. Contact with others who are coping successfully would most probably be more encouraging than would contact with others who are coping poorly.
Upward Comparison and Optimism

Further support for the argument that the instillment of encouragement and hope may have contributed to the positive effects of UC was found in the present study. Post hoc analysis revealed a significant Optimism X Social Comparison interaction in that subjects who believed that their coping abilities would improve in the future (i.e., optimistic subjects) responded favorably overall to UC but negatively to DC. People who are optimistic about the future appear to receive news about others' success rather well. They would be less concerned with ego enhancement and more concerned with knowing that certain problems can, in fact, be overcome. Likewise, an optimistic person would have nothing to gain from hearing of others' misfortunes. This would only serve to discourage them from maintaining the belief that their own situation will improve.

Social Comparison and Attribution Style

Upward comparison conditions. The overall positive effect that UC had on the subjects in this study was very clear. A SOLUTION X Social Comparison X Target interaction was also observed. However, whereas low SOLUTION individuals experienced a significant increase in their mood after UC with a high SOLUTION target, they exhibited only a modest increase in mood after UC with a low SOLUTION target.
Low SOLUTION subjects did not react especially well to hearing that another low SOLUTION person was doing better in comparison to themselves. There may be a number of reasons for these differences. If people attribute success to fate or luck, they may also view such resources as limited. Therefore, low SOLUTION people could believe that the good fortunes bestowed on another would somehow reduce their own chances of doing well in the future. Conversely, if others' success can be attributed to their hard work and effort, then low SOLUTION people can still see their own chances for good luck as undiminished.

Another process may occur when a low SOLUTION individual upward compares with a low SOLUTION person. As Just World theory proposes, when others' fates cannot be attributed to their behavior, they would then be attributed to their character. A low SOLUTION target does not assume responsibility for successful coping. Since the target's success is not due to his or her efforts, that person may therefore be seen as more deserving than the subject. The subject, by comparison, may view him/herself as a less worthy person.
Implications

Implications for Social Comparison Theory

A major finding of this research has been that upward comparison can have a positive effect on one's mood. Realizing that others are doing better than oneself may provide some encouragement and inspiration to work toward overcoming one's problems. If people are optimistic about changes in their situation, they would most likely prefer to hear about others who are coping well. In this case, contact with others who are doing poorly would only be disheartening.

Downward comparison can clearly have positive effects on a person's mood if one is primarily interested in self-enhancement (cf., Gibbons, 1986; Wills, 1987). It would then be temporarily comforting to discover that others have it worse. However, the positive effects of DC that are typically observed may not be applicable if one is actively involved in the problem-solving process. This would especially be true if one is hopeful about the future. On the other hand, it may well be that DC is best used when people are feeling more hopeless (i.e., depressed) regarding their situations.

Taylor and Lobel (1989) proposed that downward comparison and "upward contacts" can exist simultaneously in
a person. During a stressful or threatening event, both emotional needs and problem-solving needs are aroused. DC can meet certain emotional needs by allowing a person to feel better in comparison to others. UC can meet problem-solving needs by providing a person with valuable information regarding coping skills. Furthermore, as alluded to earlier, UC can also meet emotional needs by instilling hope and encouragement.

Both DC and UC obviously serve their specific purposes. The effects of each depend upon an individual's needs and circumstances. It may be important to remember that neither form of social comparison is exclusively beneficial or deleterious. In regard to oneself, there are times when a person may be advised to examine his or her own shortcomings; there are also times when one would do well to focus on recent accomplishments. Similarly, there appear to be some times when we need to hear of others' success and other times when we prefer to hear of their failures.

Clinical Implications of the PCSP Scales

One's score on the various PCSP scales may have implications in terms of the type of help that may be sought by people (cf., Brickman et al., 1982). Low CAUSE persons may be more amenable to interpreting and treating their problems in terms of a disease or medical model. This would
decrease any further threat to their self-esteem that would be associated with assuming responsibility for the cause of their problems. However, the present study did find that low CAUSE individuals may still wish to receive information about the nature of their problem and its treatment. The present study also found that high SOLUTION individuals, while not necessarily blaming themselves for causing their problems, still welcome information about their problems' cause(s). This information may be perceived as useful in terms of planning an intervention strategy.

In general, it is important to find an appropriate match between available help and the recipient's perception of the problem (cf., Brickman et al., 1982; Cohen & Wills, 1985). Otherwise, the help may be rejected. For example, high SOLUTION people could demonstrate reactance at being told that the solution to their problems is out of their hands (cf., Brehm, 1966; Wortman & Brehm, 1975). On the other hand, low SOLUTION people may be overwhelmed by the suggestion that they should overcome their problems on their own.

Problems may occur even when there is a match between one's attribution style and the help offered to the person. Coates, Renzaglia, and Embree (1983) argued that improvements that are attributed to external agents tend to
be short-lived while changes attributed to internal factors are more likely to endure. Even if, as planned, low CAUSE and SOLUTION individuals are first reminded that they did not cause their problem and then are the passive recipients of aid, the results may not last very long.

A provider of help must also be careful not to induce helplessness in the person he or she is attempting to help. Brickman et al. (1982) spoke of "the dilemma of helping" in that the very label "help" implies that the person is somehow deficient and may not be responsible for solving a problem. This is the implication of the medical and enlightenment models. Brickman et al. go on to say that "When people fail to distinguish between attribution of responsibility for a problem and for a solution, they must choose between two unsatisfactory alternatives: holding actors responsible for both problems and solutions and thus not giving help; or holding actors responsible for neither problems nor solutions and giving help on terms that undermine actors' sense of competence and control..." (p. 376). These authors believe that the dilemma of helping is best solved by applying the compensatory model. This avoids blaming or recriminating people for their problems and focuses more on what can be done to overcome them. Given the choice between understanding a problem and controlling
it, most people would likely prefer the latter. After all, one of the primary reasons for seeking to understand the cause of a problem is the hope of controlling it.

The work of Brickman et al. has clearly added much to the area of helping and coping. The distinction between attributions of responsibility for a problem's cause and for its solution is very useful in determining the help that people are likely to receive and how they would respond to that help. The present study has expanded on the work of Brickman and his colleagues by demonstrating the existence of an attributional style of assigning responsibility for a problems' causes and solutions. The relationship between these attributional styles and certain self-perceptions, preferences for specific forms of help, and reactions to social comparison has also been demonstrated. Further research in the area of helping and coping is still needed. In particular, the PCSP's hypothetical problem situations can be modified to assess the attributional styles of a non-college population. Additional validation of the PCSP would also be indicated. For instance, the PCSP scale scores can be compared to self-descriptions of one's attributional tendencies (as in those obtained by the Adjustment Description Statement). Ratings of an individual by significant others may also be used to provide further
validation of the scale. The more that is known about how help is best provided and received, the more helpful it will be.
REFERENCES


ACKNOWLEDGMENTS

The Iowa State University Committee on the Use of Human Subjects in Research reviewed this study and concluded that the welfare of the subjects was adequately protected, that informed consent was appropriately obtained, that confidentiality of data was assured, and that any risks associated with the deception or other procedures were outweighed by the potential benefits of the research.

I wish to thank Rick Gibbons for guiding me through the conception, execution, and write-up of this study. His expertise helped me to become a more critical thinker and writer. I also wish to thank the other members of my committee - Meg Gerrard, Bob Strahan, Doug Epperson, and Wendy Harrod - for their assistance in my graduate studies.

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I especially wish to thank my wife, Jill, for her understanding and encouragement. I doubt that I could have successfully completed the dissertation without her continued support. She was extremely patient during the countless hours that I had to lock myself away from her. She provided reassurance that I could survive the dissertation and maintain my sanity (although she may now question whether I have, in fact, done the latter). She believed in me far more than I believed in myself. For this I am eternally grateful.
APPENDIX A:

JANIS-FIELD FEELINGS OF INADEQUACY SCALE
INSTRUCTIONS FOR PERSONAL FEELINGS SURVEY

This is an inventory of how you feel about yourself, and how frequently you may feel that way. Please answer the questions carefully. After reading the question, select the answer which best describes your thoughts and feelings and mark that answer in the proper column on the answer sheet. Be as honest as possible, and mark those answers which describe you as you really are, not as you would like to be or think you should be.

Consider the following question as an example:

How often do you eat breakfast?
A. Very B. Fairly C. Sometimes D. Once in a while E. Practically often great while never

In this example if you practically never eat breakfast, you would mark column "E" on your answer sheet.

It is not necessary to think over any question very long. Mark your answer quickly and go on to the next statement. Try to avoid the "Sometimes" response as much as possible. Select this answer only if you really cannot decide whether the other responses are appropriate.

Remember, all your answers are kept strictly confidential.

1. How often do you have the feeling that there is nothing you can do well?
A. Very B. Fairly C. Sometimes D. Once in a while E. Practically often great while never

2. How often do you feel that you have handled yourself well at a social gathering?
A. Very B. Fairly C. Sometimes D. Once in a while E. Practically often great while never

3. When you have to talk in front of a class or a group of people your own age, how afraid or worried do you usually feel?
A. Very B. Fairly C. Somewhat D. Fairly E. Very afraid afraid afraid unafraid unafraid

4. How often do you have the feeling that you can do everything well?
A. Very B. Fairly C. Sometimes D. Once in a while E. Practically often great while never
5. How often do you worry about whether people like to be with you?
A. Very B. Fairly C. Sometimes D. Once in a E. Practically often often great while never

6. When you talk in front of a class or a group of people your own age, how pleased are you with your performance?
A. Very B. Fairly C. Somewhat D. Fairly E. Very pleased pleased pleased displeased displeased displeased

7. How often do you feel self-conscious?
A. Very B. Fairly C. Sometimes D. Once in a E. Practically often often great while never

8. How comfortable are you when starting a conversation with people whom you don’t know?
A. Very B. Fairly C. Somewhat D. Fairly E. Very comfortable comfortable comfortable uncomfortable uncomfortable

9. How often are you troubled with shyness?
A. Very B. Fairly C. Sometimes D. Once in a E. Practically often often great while never

10. How often do you feel that you are a successful person?
A. Very B. Fairly C. Sometimes D. Once in a E. Practically often often great while never

11. How often do you feel inferior to most of the people you know?
A. Very B. Fairly C. Sometimes D. Once in a E. Practically often often great while never

12. How confident are you that your success in your future job is assured?
A. Very B. Fairly C. Somewhat D. Fairly E. Very confident confident confident unconfident unconfident

13. How often do you think that you are a worthless individual?
A. Very B. Fairly C. Sometimes D. Once in a E. Practically often often great while never

14. When speaking in class discussions, how sure of yourself do you feel?
A. Very B. Fairly C. Somewhat D. Fairly E. Very sure sure sure unsure unsure
15. How much do you worry about how well you get along with people?
A. Very  B. Fairly  C. Somewhat  D. Fairly  E. Very
much       much       little       little

16. How sure of yourself do you feel when among strangers?
A. Very  B. Fairly  C. Somewhat  D. Fairly  E. Very
sure       sure       sure       unsure     unsure

17. How often do you feel that you dislike yourself?
A. Very  B. Fairly  C. Sometimes  D. Once in a  E. Practically
often       often       often       great while never

18. How confident do you feel that some day the people you know will look up to you and respect you?
A. Very  B. Fairly  C. Somewhat  D. Fairly  E. Very
confident  confident  confident  unconfident  unconfident

19. How often do you feel so discouraged with yourself that you wonder whether anything is worthwhile?
A. Very  B. Fairly  C. Sometimes  D. Once in a  E. Practically
often       often       often       great while never

20. In general, how confident do you feel about your abilities?
A. Very  B. Fairly  C. Somewhat  D. Fairly  E. Very
confident  confident  confident  unconfident  unconfident
APPENDIX B:

PERCEIVED CAUSES AND SOLUTIONS TO PROBLEMS QUESTIONNAIRE
PERCEIVED CAUSES AND SOLUTIONS TO PROBLEMS

DIRECTIONS:

1) Read each situation and vividly imagine it happening to you.
2) Decide what you believe would be the major cause of the situation if it happened to you.
3) Write down this cause in the blank space provided.
4) As honestly as possible, answer the questions about the cause and solution to the problem.
5) Go on to the next situation.

SITUATION #1: YOU HAVE BEEN FINDING IT DIFFICULT TO ADJUST TO COLLEGE LIFE.

Write down one major cause: ____________________________

Think about the cause you have written above. The following items concern your impressions or opinions about this cause. Circle one number for each of the following scales.

1. Is the cause something that:

Reflects an aspect of yourself
9 8 7 6 5 4 3 2 1
Reflects an aspect of the situation

2. Is the cause something that is:

Outside of you 1 2 3 4 5 6 7 8 9
Inside of you

3. Is the cause:

Totally due to you
9 8 7 6 5 4 3 2 1
Totally due to other people

Note: The following items concern your impressions or opinions regarding the solution to the problem. Carefully think of one major strategy or approach that you would use to overcome the problem situation listed above.

Write down one major solution: ____________________________

Circle one number for each of the following scales.
4. Is the solution to be found:

|   | Inside of you | 9 8 7 6 5 4 3 2 1 | Outside of you |

5. Is the solution something that:

|   | You could hope | 9 8 7 6 5 4 3 2 1 | You could not hope to accomplish |

6. Is the solution something for which:

|   | You are responsible | 9 8 7 6 5 4 3 2 1 | You are not responsible |

7. Is the solution something that:

|   | You are not likely to accomplish | 1 2 3 4 5 6 7 8 9 | You are likely to accomplish |

8. Is the solution something for which:

|   | Others are responsible | 1 2 3 4 5 6 7 8 9 | Others are not responsible |

9. Is the solution something for which:

|   | You have the needed skills | 9 8 7 6 5 4 3 2 1 | You do not have the needed skills |

10. Is the solution something for which:

|   | You could be held responsible | 9 8 7 6 5 4 3 2 1 | You could not be held responsible |

11. Please rate to what extent adjusting to college life is actually a problem for you.

|   | Not at all | 1 2 3 4 5 6 7 8 9 | Very much so |

SITUATION #2: YOU HAVE BEEN FINDING IT DIFFICULT TO MAKE NEW FRIENDS.

Write down one major cause: ________________________________
Think about the cause you have written above. The following items concern your impressions or opinions about this cause. Circle one number for each of the following scales.

12. Is the cause something that:

Reflects an aspect of yourself

13. Is the cause something that is:

Outside of you 1 2 3 4 5 6 7 8 9 Inside of you

14. Is the cause:

Totally due to you

Totally due to other people

Note: The following items concern your impressions or opinions regarding the solution to the problem. Carefully think of one major strategy or approach that you would use to overcome the problem situation listed above.

Write down one major solution:

Circle one number for each of the following scales.

15. Is the solution to be found:

Inside of you 9 8 7 6 5 4 3 2 1 Outside of you

16. Is the solution something that:

You could hope to accomplish

You could not hope to accomplish

17. Is the solution something for which:

You are responsible

You are not responsible

18. Is the solution something that:

You are not likely to accomplish

You are likely to accomplish
19. Is the solution something for which:

Others are 1 2 3 4 5 6 7 8 9 Others are not responsible

20. Is the solution something for which:

You have the 9 8 7 6 5 4 3 2 1 You do not have the needed skills

21. Is the solution something for which:

You could be 9 8 7 6 5 4 3 2 1 You could not be held responsible

22. Please rate to what extent having difficulty making new friends is actually a problem for you.

Not at all 1 2 3 4 5 6 7 8 9 Very much so

SITUATION #3: YOU HAVE BEEN FEELING "DOWN" A LOT MORE OFTEN THAN YOU THINK YOU SHOULD.

Write down one major cause: _______________________________________

Think about the cause you have written above. The following items concern your impressions or opinions about this cause. Circle one number for each of the following scales.

23. Is the cause something that:

Reflects an aspect of yourself 9 8 7 6 5 4 3 2 1 Reflects an aspect of the situation

24. Is the cause something that is:

Outside of you 1 2 3 4 5 6 7 8 9 Inside of you

25. Is the cause:

Totally due to you 9 8 7 6 5 4 3 2 1 Totally due to other people
Note: The following items concern your impressions or opinions regarding the solution to the problem. Carefully think of one major strategy or approach that you would use to overcome the problem situation listed above.

Write down one major solution:_____________________________

Circle one number for each of the following scales.

26. Is the solution to be found:

| Inside of you | 9 8 7 6 5 4 3 2 1 | Outside of you |

27. Is the solution something that:

| You could hope to accomplish | 9 8 7 6 5 4 3 2 1 | You could not hope to accomplish |

28. Is the solution something for which:

| You are responsible | 9 8 7 6 5 4 3 2 1 | You are not responsible |

29. Is the solution something that:

| You are not likely to accomplish | 1 2 3 4 5 6 7 8 9 | You are likely to accomplish |

30. Is the solution something for which:

| Others are responsible | 1 2 3 4 5 6 7 8 9 | Others are not responsible |

31. Is the solution something for which:

| You have the needed skills | 9 8 7 6 5 4 3 2 1 | You do not have the needed skills |

32. Is the solution something for which:

| You could be held responsible | 9 8 7 6 5 4 3 2 1 | You could not be held responsible |
33. Please rate to what extent feeling "down" is actually a problem for you.

Not at all  1  2  3  4  5  6  7  8  9  Very much so

SITUATION #4: YOU CAN NOT GET ALL THE WORK DONE THAT IS EXPECTED OF YOU.

Write down one major cause:______________________________

Think about the cause you have written above. The following items concern your impressions or opinions about this cause. Circle one number for each of the following scales.

34. Is the cause something that:

Reflects an aspect of yourself  9 8 7 6 5 4 3 2 1   Reflects an aspect of the situation

35. Is the cause something that is:

Outside of you  1 2 3 4 5 6 7 8 9   Inside of you

36. Is the cause:

Totally due to you  9 8 7 6 5 4 3 2 1   Totally due to other people

Note: The following items concern your impressions or opinions regarding the solution to the problem. Carefully think of one major strategy or approach that you would use to overcome the problem situation listed above.

Write down one major solution:______________________________

Circle one number for each of the following scales.

37. Is the solution to be found:

Inside of you  9 8 7 6 5 4 3 2 1   Outside of you

38. Is the solution something that:

You could hope to accomplish  9 8 7 6 5 4 3 2 1   You could not hope to accomplish
39. Is the solution something for which:

You are 9 8 7 6 5 4 3 2 1 You are not responsible
responsible

40. Is the solution something that:

You are not likely to accomplish 1 2 3 4 5 6 7 8 9 You are likely to accomplish

41. Is the solution something for which:

Others are 1 2 3 4 5 6 7 8 9 Others are not responsible
responsible

42. Is the solution something for which:

You have the needed skills 9 8 7 6 5 4 3 2 1 You do not have the needed skills

43. Is the solution something for which:

You could be held responsible 9 8 7 6 5 4 3 2 1 You could not be held responsible

44. Please rate to what extent not being able to get all of the work done that is expected is actually a problem for you.

Not at all 1 2 3 4 5 6 7 8 9 Very much so

45. Your sex: Male = 1
Female = 2
APPENDIX C:
INFORMED CONSENT STATEMENT
INFORMED CONSENT STATEMENT

The purpose of this study is to investigate the problems that students face while adjusting to college life. We are also interested in how discussion groups might help people deal with those problems. During the course of the study, you will be asked some questions about yourself, your adjustment to college, and the adjustment strategies that you have used. You will also be asked to share some information about yourself with other participants in the study.

We would anticipate that participants will vary regarding how well they are coping with their adjustment to college. Keep in mind that you do not have to answer any questions and that you may leave this experiment at any time without penalty. If you have any questions, please ask the experimenter. Thank you.

"I have read the informed consent statement and I agree to participate in this study."

____________________________   _________________________
Name                                           Date
APPENDIX D:

SELF-DESCRIPTION QUESTIONNAIRE
Self-Description

We would now like to get some information from you regarding your thoughts and opinions. Please indicate your responses to the following questions by circling the appropriate X.

How well do you think you are coping with the problems you are facing, relative to the typical student at ISU?

Much worse Much better

In comparison with other students, how are things going for you?

Much worse Much better

Do you think your coping or adjustment capabilities will improve in the future?

Definitely not

Definitely yes

In general, do you believe your problems are controllable?

Definitely not

Definitely yes
APPENDIX E:
DISCUSSION GROUP COMPOSITION QUESTIONNAIRE
Discussion Group Composition

If you were going to participate in an ongoing group in which personal problems were discussed, please rate how helpful each of the following group characteristics would be for you. Indicate your response by circling the appropriate number.

**How helpful would a group be in which member:**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Not at all helpful</th>
<th>Very helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>tell me it's okay to feel the way I do</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>provide &quot;common sense&quot; advice</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>give me information about the cause of my problems</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>remind me that I must take responsibility for myself</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>provide expert-like advice regarding overcoming my problems</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>take me &quot;under their wing&quot;</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>keep my mind off my problems</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>tell me step-by-step what I should do</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>agree with my thoughts and opinions</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>are willing to lend me money or other items</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>tell me that I am not the only one who feels as I do</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>
encourage me to forget about myself and think of others 1 2 3 4 5 6 7 8 9
remind me that sometimes life is unfair and unjust 1 2 3 4 5 6 7 8 9

In general, how useful do you think support groups are in helping people overcome problems?

1 2 3 4 5 6 7 8 9
Useless Extremely useful

Would you be interested in participating in a discussion group on college adjustment?

1 2 3 4 5 6 7 8 9
Definitely not Definitely yes
APPENDIX F:

ADJUSTMENT DESCRIPTION STATEMENT
Adjustment Description Statement

There is no question that everyone has their own "style" of dealing with personal problems. That is, everyone has his or her own belief about what is the best way to face problems when they occur. Also, almost everyone has experienced some sort of difficulty adjusting to the many demands of college life.

In the space below, we would like you to describe: 1) what approach you typically have used to cope with your personal problems (e.g., whether you rely upon yourself or look for help from others, whether you wait for events to develop or respond immediately) and, 2) how well you feel you are actually doing with any problems you may have in adjusting to college life.

It is very important that you be as honest as possible when answering these questions.
APPENDIX G:
INITIAL MOOD SCALE
Before we begin the major section of this study, we would like to find out how you are feeling right now. Please indicate by circling an X for each adjective below.

a. Happy
   X X X X X X X X X
   Not at all Very

b. Discontent
   X X X X X X X X X
   Not at all Very

c. Insecure
   X X X X X X X X X
   Not at all Very

d. Hopeful
   X X X X X X X X X
   Not at all Very

e. Tense
   X X X X X X X X X
   Not at all Very

f. Joyful
   X X X X X X X X X
   Not at all Very

g. Discouraged
   X X X X X X X X X
   Not at all Very

h. Pleased
   X X X X X X X X X
   Not at all Very
In general, how would you describe your mood right now?

X X X X X X X X X

Very Positive

Very Negative
APPENDIX H:
ADJUSTMENT DESCRIPTION STATEMENT QUESTIONNAIRE
Adjustment Description Statement (ADS) Questionnaire

The following questions concern the statement that you just read. Please indicate your response by circling the appropriate X.

How well do you think this person is coping with his/her problems?

X X X X X X X X X X X
Very well

X X X X X X X X X X X
Very poorly

What was the tone of his/her statement?

X X X X X X X X X X
Very pessimistic

X X X X X X X X X X
Very optimistic

In comparison to yourself, how well do you think things are going for this person?

X X X X X X X X X X
Much better

X X X X X X X X X X
Much worse
APPENDIX I:
SECOND MOOD SCALE
Before we complete this section of the study, we would like you to indicate to us what your current mood state is like. Please think about each description carefully before you go ahead and answer. Right now I am feeling:

a. Calm

X X X X X X X X X
Extremely
Not at all

b. Content

X X X X X X X X X
Extremely
Not at all

c. Hopeless

X X X X X X X X X
Extremely
Not at all

d. Depressed

X X X X X X X X X
Extremely
Not at all

e. Displeased

X X X X X X X X X
Extremely
Not at all

f. Encouraged

X X X X X X X X X
Extremely
Not at all

g. Sad

X X X X X X X X X
Extremely
Not at all

h. Secure

X X X X X X X X X
Extremely
Not at all

Mood Scale
In general, how would you describe your mood right now?

Very Very Positive

Very Negative