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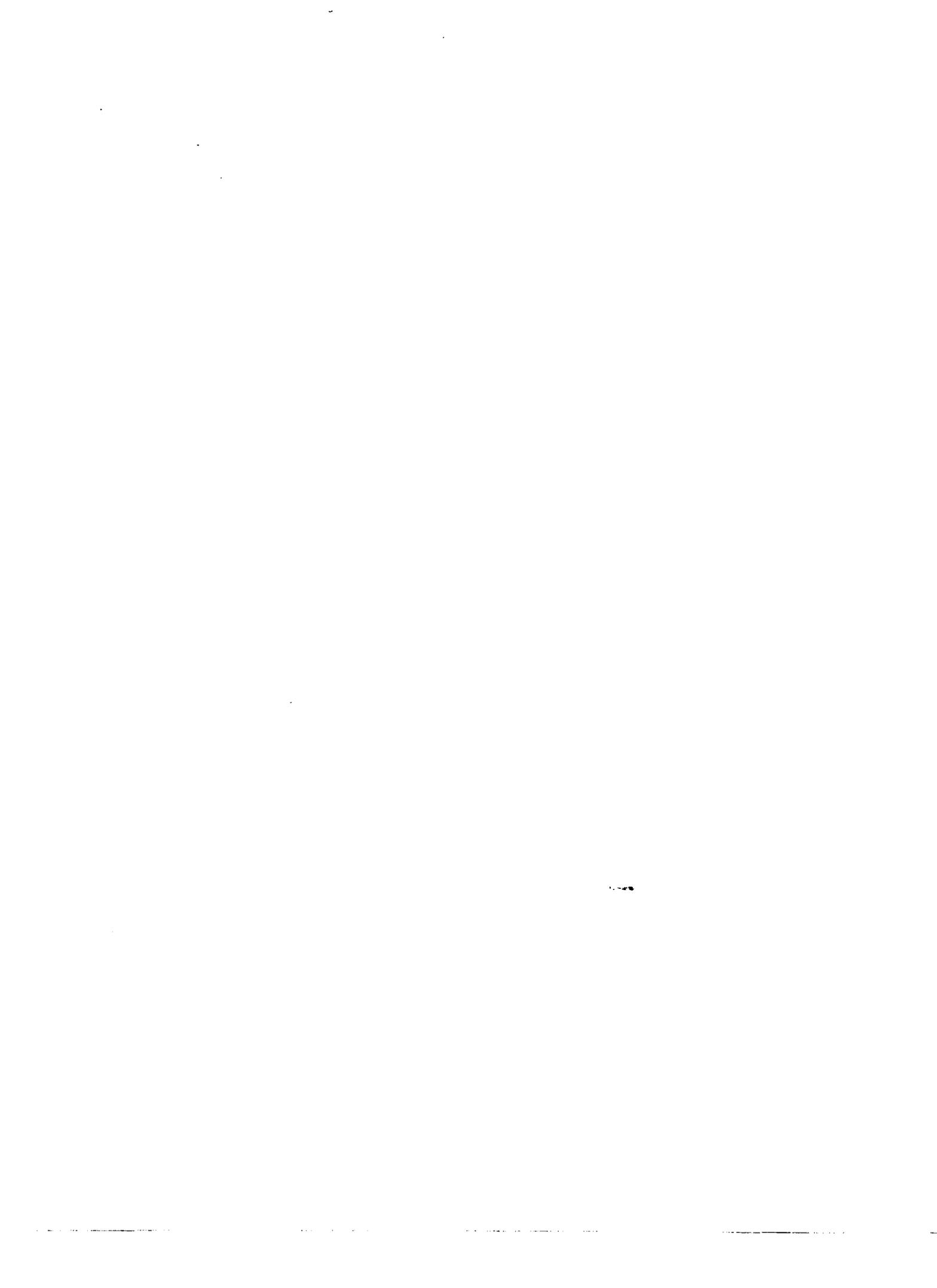
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**Loneliness and psychological adjustment: A comparison among  
three ethnic groups**

Kirkland, Shari Lynn, Ph.D.

The University of Arizona, 1988

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**LONELINESS AND PSYCHOLOGICAL ADJUSTMENT:  
A COMPARISON AMONG THREE ETHNIC GROUPS**

by

**Shari Lynn Kirkland**

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A Dissertation Submitted to the Faculty of the  
DEPARTMENT OF PSYCHOLOGY  
In Partial Fulfillment of the Requirements  
For the Degree of  
DOCTOR OF PHILOSOPHY  
In the Graduate College  
THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA  
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As members of the Final Examination Committee, we certify that we have read  
the dissertation prepared by Shari Lynn Kirkland, M.A.

entitled LONELINESS AND PSYCHOLOGICAL ADJUSTMENT: A COMPARISON AMONG THREE  
ETHNIC GROUPS

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SIGNED: Shari Lynn Kirkland

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### ABSTRACT

In the current study differences between lonely and nonlonely black, Hispanic, and white subjects were assessed in an attempt to discover any group variation and to highlight the potential importance of research using different ethnic groups. Loneliness was chosen as the focus because it is well researched, and likely to be a problem across groups. Previous research has demonstrated that lonely white subjects exhibit an internal, stable attribution style which is related to their loneliness and psychological distress. It was hypothesized that lonely ethnic minorities would exhibit a more external, unstable attribution style and, hence, fewer symptoms of psychological distress than lonely whites. This hypothesis was based on research indicating that 1) some ethnic minority groups exhibit a more external locus of control than whites, and 2) self-blaming tendencies exacerbate negative emotions, cognitions, and behaviors. The results did not support this hypothesis. Regardless of loneliness, black subjects scored highest on psychological adjustment and lowest on internal, stable attributions for negative events, whereas Hispanics scored at the other extreme. Loneliness correlated with internal, stable attributions for negative outcomes, and with psychological maladjustment, although the strength of these relationships varied with ethnicity. Implications of generalizing findings across groups were discussed.

## CHAPTER 1

### INTRODUCTION

#### Overview

Clinical psychology literature is replete with research and theories on emotional difficulties and psychological adjustment. This research, however, is generally limited to white subjects. Consequently, in the past 20 years, researchers have begun to voice concern about the dearth of like research on ethnic minorities (e.g., Clark, 1972; Nobles & Goddard, 1984; Staples, 1971). Specifically, these researchers have questioned the apparent assumption that white subjects provide a baseline or norm for all groups, and the likely misinterpretation of the limited data on ethnic minorities because of this.

The present study examined an area of research which has been exclusively focused on white subjects, with little data relevant to ethnic minorities—loneliness. Though there has been a recent increase in research on loneliness among college students (Jones, Carpenter, & Quintana, 1985) the literature has generally failed to examine the impact of ethnicity on the experience of loneliness. The lack of research on loneliness in different ethnic groups is particularly surprising for the following reasons: the likelihood that loneliness is a common condition of the ethnic minority experience by virtue of minority status; the seriousness of loneliness and its association with other forms of psychological distress (e.g., Peplau & Perlman, 1982); cross-cultural research of similar constructs, such as alienation, showing a significant impact of ethnicity (Burbach & Thompson, 1971; Suen, 1983). The current study compared three ethnic groups of college students (black, Hispanic, and white) on loneliness and other related variables. This chapter begins with a brief overview of problems in traditional ethnic minority research. A literature review of research on loneliness in general, and on alienation among ethnic minority students on predominantly white college campuses follows.

### The State of Psychological Research on Ethnic Minority Groups

In the past 20 years, a number of researchers have discussed problems associated with conducting research with ethnic minority subjects. In addition to identifying a dearth of research on these groups, researchers have also identified the tendency to approach ethnic minority issues from a foreign framework as major problems in psychological literature (e.g., Billingsley, 1968; Hill, 1972; Jackson, 1975; Ladner, 1972; Staples, 1971). The latter pertains to the practice of interpreting the limited research on ethnic minority subjects within a framework developed for and based on the characteristics and culture of nonminority subjects. Research suggests that different cultural groups may differ on a number of factors including such overt behaviors as language and mannerisms, as well as more covert aspects such as philosophical world views (Erny, 1984; Harwood, 1981). As a result, there is concern that the practice of defining the behavior, beliefs, and actions of one cultural group within the framework of another (that is, applying the meanings appropriate to and consistent with one group to another group) may lead to errors in interpretation (Kuhn, 1963; Popper, 1961). The literature on cross-cultural therapy experiences (Block, 1984; Sue, 1981) illustrates this problem well. In this literature differences in language, appearance and mannerisms, as well as in psychological characteristics and interactive styles have been identified as factors contributing to the lack of success and satisfaction with therapy among ethnic minorities, relative to nonminorities (Beutler, 1983; Block, 1984; Sue, 1981). Furthermore, the practice of interpreting ethnic minority behavior from the nonminority cultural perspective has been identified as at least one of the factors contributing to ethnic minorities' lack of satisfaction and success in therapy (Block, 1984; Nobles & Goddard, 1984; Sue, 1981). Because the realities of ethnic minority life and survival are different from the majority, some of the more common expressions/experiences of various psychological difficulties in the larger culture may have more life threatening value for

ethnic minorities. Hence, ethnic minorities' expressions of the same construct may be significantly different from that of society at large. For example, clinical literature shows that black patients diagnosed as depressed express more anger and hostility than depressed white patients based on clinical judgment and ratings (e.g., Block, 1984). Such differences in symptomatology may lead to misdiagnoses when approached from the viewpoint (i.e., norms) of society at large. In the case of depressed black patients, their anger and hostility may be viewed more as some sort of antisocial behavior disorder rather than what it really is, i.e., an active, and, therefore, safe and culturally accepted symptom of depression.

It is the position of various researchers (Jones & Block, 1984; Nobles & Goddard, 1984) that ethnic differences in psychosocial behavior patterns are present and should be studied; that psychology has not done a good job of either exploring these patterns or developing alternative models of theories from such findings; and that the understanding of the ethnic minority experience and the treatment of ethnic minorities suffers from these inadequacies (Jones & Block, 1984; Nobles & Goddard, 1984). In order to better understand and treat ethnic minorities, we need more comparative studies on various psychological hypotheses using different ethnic minority groups, as well as the white majority. Researchers (Jones, 1984; Sattler, 1970) caution against assumptions of homogeneity within ethnic groups, as ethnicity is a broad concept with enormous within group variability regarding many factors (such as educational level, social economic status, and environmental context, Jones, 1984).

The university presents an interesting setting for research on ethnic minorities and majorities. With the recent influx of ethnic minority students into universities, these settings have become more like a microcosm of society at large with respect to group diversity. In addition, university counseling centers, like the overall psychological community, have a history of defining ethnic minority experiences (e.g., needs, beliefs,

behaviors) in terms of the better researched nonminority experience in the absence of empirical data indicating similarity between groups (Allen, 1981; Madrazo-Peterson & Rodriguez, 1978). While it is generally agreed upon that college students are not necessarily representative of the larger society, the opportunity for between group comparisons offers hope for elucidating relevant differences within this subgroup (which, in itself is valuable given the increasing number of ethnic minority students), if not in general.

In the current investigation, the construct of loneliness was chosen not only because it has been identified as a common problem on United States campuses among white subjects (Cutrona, 1982; Freemon & Goswick, 1981) and is related to an array of negative cognitions and emotions (e.g. Schmitt & Kurdek, 1985), but also because it is likely to be a problem among ethnic minority students as a result of their minority status. In addition, ethnic differences in a similar construct, i.e., alienation, have been shown (Burbach & Thompson, 1971; Suen, 1983), suggesting that a study of loneliness may also reveal interesting differences.

### Theory and Research on Loneliness in White College Students

#### A. The Experience of Loneliness Among White College Students

Loneliness has been defined as the psychological state that results from discrepancies between one's desired and one's actual relationships (Peplau & Perlman, 1982). Among North American populations in general, and college student populations, there is evidence that loneliness is a common and persistent problem (Bradburn, 1969; Cutrona, 1982; SeEVERS, 1972). Bradburn (1969) found that approximately 26 percent of the United States population report feeling lonely within the "past few weeks." SeEVERS (1972) found that college students have a greater incidence of loneliness than the general population. Furthermore, one of the most common complaints or problems revealed in

psychotherapy and in questionnaire research is loneliness (Anderson, Horowitz, & French, 1983).

A literature review of loneliness among college students indicates that loneliness is strongly related to a vast array of negative emotions and cognitive states. These include the following: self-derogation (Jones, Freeman, & Goswick, 1981; Loucks, 1980; Russell, Peplau, & Ferguson, 1978); anxiety (Jones et al., 1981; Russell et al., 1978); self-consciousness (Horowitz & French, 1979; Jones et al., 1981); negative views about the social world (e.g., the world is unjust, and/or the belief that others evaluate them negatively, Jones et al., 1981); boredom, restlessness, and unhappiness (Perlman, Gerson, & Spinner, 1978); suicide (Jacobs, 1971; Wenz, 1977); negative attributions, especially in interpersonal situations (Anderson & Arnoult, 1985; Anderson et al., 1983; Michela, Peplau, & Weeks, 1982); physical illness (Lynch, 1976). Loneliness has also been linked to common, yet serious forms of psychological discomfort, including anxiety, depression (Bragg, 1979; Schultz & Moore, 1984), low self-esteem, and interpersonal hostility (Weiss, 1973).

#### B. Measures of Loneliness

While a number of researchers have developed loneliness scales (NYU Loneliness Scale, Rubenstein & Shaver, 1979; Spiritual Well-Being Scale, Ellison & Paloutzian, 1979; Young Loneliness Scale, Young, 1979), few have actually been published. In fact, Russell (1982) reported that as of 1982, only two had been published, the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) and the loneliness scale developed by de Jong-Gierveld (1979). Overall, researchers have approached the problem of measuring loneliness from a unidimensional approach, that is, from the perspective that loneliness is a unitary phenomenon that varies primarily in its experienced intensity. This approach assumes that there are common themes in the experience of loneliness, regardless of what the particular cause of loneliness is for the individual.

The Revised UCLA Loneliness Scale (Russell et al., 1980) is one of the most widely used global measures of loneliness, most likely because it is psychometrically adequate, easily administered, and accessible, i.e., published. Similar to other unidimensional self-report measures of loneliness (NYU Loneliness Scale, Rubenstein & Shaver, 1979; Spiritual Well-Being Scale, Ellison & Paloutzian, 1979; Young Loneliness Scale, Young, 1979), the Revised UCLA Loneliness Scale consists of statements about experiences of loneliness which subjects rate according to fit. Half of the items are keyed positively and half are keyed negatively in order to reduce possible response bias. Additionally, because the word "loneliness" is thought to be associated with social stigma (Gordon, 1976), the word "lonely" does not appear on the scale, unlike some of the previously mentioned scales (i.e., NYU Loneliness Scale; Spiritual Well-Being Scale). Studies have shown this scale to be highly reliable, and valid in assessing loneliness. Discriminant validity has also been demonstrated using the Revised UCLA Loneliness Scale (Russell et al., 1980), a form of validity not commonly assessed with other such measures (e.g., Russell, 1982). This is particularly important since loneliness has consistently been found to correlate with a number of other constructs such as depression and low self esteem (Russell, 1982).

Multidimensional measures of loneliness have also been devised, though to a lesser degree than unidimensional measures. Multidimensional measures of loneliness conceptualize different aspects of loneliness, whether they be psychological factors, sociological factors, or types of relationships (e.g., romantic, friendships, professional). While these measures may be helpful in clarifying variations in the experience of loneliness, little research exists relevant to the theoretical conceptualizations underlying the various hypothesized dimensions chosen. The latter is likely to be a factor in the popularity of unidimensional measures of loneliness over multidimensional measures.

### C. Models of Loneliness

The incidence of loneliness among college students is perplexing as, there are a large number of potential friends in the lonely student's environment. For many students, the college years are relatively unencumbered by parental supervision of social life, but not restricted by marital, vocational, and other more or less permanent commitments. Yet, college students as a group, are more lonely than most (SeEVERS, 1972) perhaps because of the lack of permanent relationships and their overall state of flux. Thus, many college students experience loneliness in an environment rich with social potential.

There are many different theoretical approaches to loneliness. These include sociological approaches which emphasize society's failure to meet the individual's attachment needs due to increased mobility and values of individualism (Slater, 1976), and existential approaches which posit that loneliness is part of the human condition (Moustakas, 1972). However, two models prevail in the literature: the social deficits approach and the cognitive approach.

The social deficit model of loneliness suggests that loneliness is the result of social skills deficits which serve to repel others and reduce the frequency and quality of social contacts (e.g., Jones, 1982). This model is based primarily on self-report studies demonstrating that lonely subjects endorse significantly more items indicative of social skills deficits than do nonlonely subjects (Chelune, 1979; Jones et al., 1981; Russel et al., 1980; Solano & Parish, 1979). Specifically, these studies show that lonely subjects score lower on social risk-taking, sociability, expressed inclusion of and affection for others, and self-disclosure. Research demonstrating a relationship between loneliness and problematic dispositions (e.g., self-derogation and negative emotions such as hopelessness and alienation, Barrett & Becker, 1978; Hansson & Smith, 1980; Jones et al., 1981; Moore

& Sermat, 1974; Russell et al., 1980) also supports the social skills deficit model of loneliness as such dispositions are likely to negatively affect patterns of relating.

Research clearly demonstrates that lonely subjects, in comparison to nonlonely subjects, are more likely to perceive personal deficits in social skills, as well as rejection by others (Jones et al., 1981). To assess the accuracy of these perceptions, researchers (Jones, 1978; Jones et al., 1981) have begun to investigate others' perceptions of lonely subjects in terms of social skills. Evidence that lonely subjects are differentially evaluated by others with respect to social skills is both weak and inconsistent. For example, Jones et al. (1981) examined the relationship between loneliness and interpersonal perceptions such as friendliness, trustworthiness, and leadership ability within a specific group setting. Subjects provided ratings along the following four dimensions at both the beginning and end of a semester: self-ratings; reflected self-ratings, that is, how the subject expected to be rated by other group members; ratings of others; ratings by others, that is, the mean ratings of the subject by others. Data reflecting these four perspectives were compared to self-reported loneliness scores for both administrations. Initial results indicated that lonely participants were evaluated less favorably by others, however, when the same measures were given at the end of the semester, these differences disappeared. Other studies have failed to find differences in ratings of others by lonely and nonlonely subjects on variables of personality, interpersonal attraction or social behavior (Jones 1978; Jones et al., 1981). Research has also failed to find a consistent relationship between loneliness and social contact. Again, results have been mixed. Whereas some studies demonstrate that lonely college subjects report less social contact than do nonlonely subjects (Jones, Hansson, & Smith, 1980; McCormick & Kahn, 1980; Russell et al., 1980) other studies have failed to find such a relationship (Jones, 1981, 1982), or have found that dissatisfaction with one's relationships was a better predictor of loneliness than was the frequency of contact or

number of friends (Cutrona & Peplau, 1979). Hence, evidence for the social skills deficit model of loneliness has been only partially supported by the research.

The cognitive approach to loneliness proposes that cognitive processes, namely attribution style, modulate the loneliness experience. Peplau and Perlman (1982) were among the first researchers to consider the role of causal attributions in the experience of loneliness. They assert that while the discrepancy between desired and achieved social relationships is typically perceived by the individual as loneliness, such a discrepancy does not inevitably lead to loneliness. That is, the way in which one explains/accounts for discrepancies may affect their perception of those experiences with respect to coping behavior, self-esteem, and expectancies for further affective reactions (Peplau & Perlman, 1982). Though there are many models of attribution style, Weiner's model of causal attribution (Weiner, 1974, 1979; Weiner, Freize, Kukla, Reed Rest, & Rosenbaum, 1972) has generally been used to research the causal attributions of loneliness. This model, having been applied to the achievement domain, was considered most appropriate since loneliness is considered a social failure (Gordon, 1976) and, therefore, related to achievement (Peplau, Russell, & Heim, 1979; Peplau & Perlman, 1982). According to Weiner's model of causal attribution, causal attribution can be classified along the three dimensions of locus of causality (internal or personal versus external or situational), stability (stable versus variable over time and period) and controllability (whether or not people perceive themselves as having control over factors).

Several studies have tested the applicability of Weiner's model of causal attributions to loneliness (Michela, Peplau, & Weeks, 1980; Peplau et al., 1979). One such study (Michela et al., 1980) examined students' perceptions of common causes of loneliness, and found that dimensions of internality, stability, and controllability were salient in lay conceptions of loneliness. These findings have been replicated in several other studies

(Anderson & Arnoult, 1985; Anderson et al., 1983; Michela et al., 1982) which will be revealed in depth later in this dissertation.

Research is accumulating to demonstrate the link between causal attributions and reactions. Whether people respond to loneliness with depression or hostility, with passivity or active striving appears to be related to personal explanations for loneliness and other failures. For example, Michela, Peplau and Weeks (1981) showed that lonely subjects who attributed loneliness to unchangeable features of the self (i.e., internal, stable causes) exhibited significantly more pessimism and hopelessness about overcoming loneliness in the future. Likewise, with respect to affect, Bragg (1979) found that lonely college students who exhibited an internal, stable pattern of attribution for loneliness also reported more severe depression than lonely college students with less internal, stable patterns of attribution. Finally, attribution style has been shown to correlate with the behavior and coping responses of lonely individuals. For example, Anderson (1980) found that lonely college students attribute failure experiences, particularly those of an interpersonal nature, to unchangeable, characterological deficits (e.g., low ability, personality traits) as opposed to changeable personal factors (e.g., lack of effort, use of ineffective strategies) significantly more often than nonlonely subjects. Goetz and Dweck (1980) and Cutrona (1982) have shown further evidence of the negative influence of attribution style of lonely subjects on behavior and affect. As a result of this research, advocates of this model (Michela, Peplau, Anderson, Perlman) assert that attributions are causal factors in determining expectancies, emotions, and behaviors related to loneliness (Peplau & Perlman, 1982), though the research has been strictly correlational.

The cognitive/attribution approach to loneliness was considered the most appropriate for the current study because of the model's emphasis on the individual's cognitive processes in the interpretation of and reactions to experiences of loneliness. In this sense, this model is consistent with the goal of the present investigation which was to

elucidate differences in the experience of loneliness with respect to expected cultural variations (due to ethnic differences in such areas as value systems, behavioral repertoires and world views, Sue, 1981). This model was also chosen to examine ethnic differences in loneliness due to this researcher's interest in examining group differences in the absence of implied deficits, specifically, deficits defined by majority standards. This is not to suggest that social deficits do not play a possible role in any individual's experience of loneliness, but rather that the deficit model has been over-applied in the study of ethnic minorities without consideration of cognitive processes that may mediate group differences, i.e., majority defined deficits. Hence, what follows is a review of the literature on attribution style of lonely college subjects.

### Theory and Research on Attribution Style and Its Relationship with Loneliness

#### A. The Attribution Style of Lonely College Students

According to attribution theorists, perceived causes of events affect overall social perception (Kelley & Michela, 1980). Researchers have sought to identify the general properties or dimensions underlying specific causal attributions and the psychological consequences of causal attributions. The model of causal attributions developed by Weiner and his colleagues (Weiner, 1974, 1979; Weiner et al., 1972) identifies three basic dimensions of causal attributions for success and failure experiences including internality, stability, and controllability. For example, stability was found to be related to expectancy, so that if an outcome is ascribed to stable causes, subjects are more likely to expect similar future outcomes than if ascribed to unstable outcomes (Fontaine, 1974; McMahan, 1973; Ostrove, 1978; Weiner, 1979). Similarly, internality has been found to be related to affect so that failure experiences attributed to internal causes are related to feelings of incompetence and inadequacy, whereas those ascribed to external causes are related to feelings of surprise and anger (Weiner, 1979; Weiner, Russell, & Lerman, 1978).

Controllability has been found to correlate with helplessness, so that subjects who ascribe the control for events to external factors are more likely to report feelings of helplessness than those who ascribe control more internally (Weiner, 1979).

Weiner (1979) suggests that his model of causal attributions constitutes a general model of motivation. Recently, studies have investigated Weiner's model in relation to attributions for the causes of loneliness, since loneliness may be construed as the failure to achieve satisfying social relationships (Peplau & Perlman, 1982; Peplau et al., 1979). The research consistently shows that lonely people ascribe their loneliness to unchangeable, characterological defects, i.e., internal, stable causes. For example, Anderson et al. (1983) conducted a study of the attribution style of undergraduate students in which 290 subjects completed the UCLA Loneliness Scale, a 20-item self report measure of loneliness (Russell et al., 1978), the Beck Depression Inventory (Beck, 1967a), and the Attribution Style Assessment Test-I (Anderson et al., 1983). The latter is a measure of attribution style used in several studies to examine causal attributions of lonely subjects (Anderson, 1983; Anderson & Arnoult, 1985; Jennings, 1980). Using this measure subjects are presented with different situations in which they determine the cause of outcomes, and subsequently rate the cause on the following six dimensions: strategy, ability, effort, trait, mood, and other circumstances. The measure has shown promise in distinguishing between lonely and nonlonely subjects (Anderson, 1983; Anderson & Arnoult, 1985; Anderson, Horowitz, & French, 1983; Jennings, 1980). Using correlation analyses, Anderson et al. (1983) found that loneliness is significantly and positively correlated with ability and trait and negatively correlated with strategy and effort, so that lonely subjects tend to ascribe failure experiences to characterological deficits in themselves. Furthermore, the attributions preferred by lonely subjects (ability and trait), though significant for both interpersonal and noninterpersonal failures, were significantly stronger for situations of interpersonal failures than noninterpersonal

failures. This study is particularly interesting from the perspective that it offers empirical evidence for the literature's conceptualization of loneliness as a primarily interpersonal problem (Horowitz, French, & Anderson, 1982).

A study by Michela et al. (1982) yielded similar findings. They examined the applicability of Weiner's model of causal attribution (Weiner, 1974, 1979; Weiner et al., 1972) to lay explanations for causes of loneliness. In previous research by Berke and Peplau (1976) college students responded to open-ended questions about the causes of loneliness. The authors compiled a list of 13 categories of causes of loneliness from subjects' responses. Subjects were presented with descriptions of lonely individuals which varied on a number of dimensions, such as type (interpersonal vs. romantic) and duration of loneliness. Subjects then identified one of the 13 categories compiled from the Berke and Peplau study as the cause of loneliness in that sample, and rated that category in terms of operational definitions of Weiner's three attribution dimensions. Michela et al. found that both internal and stable dimensions were identified as underlying attributions for loneliness, but controllability was dependent upon, and predictable from internality and stability. That is, controllable causes were internal and unstable. Thus, this study provides further evidence of the viability of the dimensions of internality, stability, and controllability in the experience of loneliness.

Finally, in a more comprehensive study of causal attributions for "problems in living" Anderson and Arnoult (1985) tested the relative importance of various dimensions of attribution style as predictors of problems in living. College students completed abbreviated versions of the UCLA Loneliness Scale (Russell et al., 1978), the Beck Depression Inventory (Beck & Beck, 1972), and other scales of shyness and anxiety, as well as the Attribution Style Assessment Test-III (Anderson & Arnoult, 1985). The latter is similar to the Attribution Style Assessment-I (Anderson et al., 1983) in that subjects were presented with different situations in which they determine the cause of the

outcomes, and subsequently rate the cause on a number of different dimensions. Unlike the original version, the dimensions of the Attribution Style Assessment Test-III include dimensions of internality, stability and globality, as identified by Seligman's learned helplessness model (Abramson, Seligman, & Teasdale, 1978), controllability, as identified by Weiner's model of causal attributions (Weiner, 1974, 1979; Weiner et al., 1972) and intentionality as identified by Heider (1958). The rationale for choosing these five dimensions was not addressed beyond recognition of the prominence of each model. Through a series of regression and correlation analyses, Anderson and Arnoult found that only controllability and internality contributed unique increments to the prediction of loneliness. Controllability was the single most important dimension for predicting one's level of loneliness. Specifically, in situations of success (both interpersonal and noninterpersonal) and interpersonal failure, loneliness was positively correlated with uncontrollable causal attributions. That is, lonely subjects tended to ascribe success and interpersonal failure to uncontrollable causes. Internality was found to contribute significantly to the prediction of loneliness only when assessed by situations of interpersonal failure. In these situations, loneliness was positively correlated with internality. Given that controllability has been shown to be predictable from internality and stability (Michela et al., 1982), this study provides corroboration for Anderson et al. (1983) and Michela et al.'s (1982) findings that loneliness is related to internal, stable causal attributions for failure experiences including loneliness.

The studies reviewed above provide valuable and reliable information about the attribution style of lonely college students. Attribution style is viewed as important not only because of the general findings in the attribution research that self-blaming tendencies (as seen in lonely subjects) exacerbate emotions (e.g., Riemer, 1975) cognitions (e.g., McMahan, 1973) and behaviors (e.g., Weiner, 1974) that are unpleasant or

maladaptive, but also findings in the loneliness research suggesting that attribution style significantly affects one's experience of loneliness.

#### B. Correlates of Attribution Style

Loneliness has been found to be related to internal, stable causal attributions for failures. Attribution research in general and research on loneliness in particular have demonstrated that such an attribution style is associated with negative affect and behaviors. For example, Weiner et al. conducted a series of studies to determine the relationship between internality and affect in situations of success and failure (Weiner et al., 1978). In these studies subjects were to assess a scenario of success or failure, and were either provided with a cause of the event or asked to determine it themselves (i.e., ability, typical effort, immediate effort, or help/hindrance from others). Subjects then listed three emotions thought to be associated with the experience. Weiner et al. found that affect accompanying failure differs significantly depending on the attributions made. Specifically, they found that aspects associated with self esteem (such as competence and adequacy) are mediated by the locus of one's causal attributions of failure experiences. Hence, attributions to external causes (such as hindrance by others) and to unstable internal causes (such as lack of effort) were found to be associated with such feelings as surprise, anger and embarrassment. In contrast failure ascribed to internal, stable causes of ability and personality were associated with feelings of incompetence and inadequacy. Furthermore studies examining the effects of stability (another significant dimension in the attribution style of lonely subjects) on affect and behavior consistently reveal a relationship between stability and future expectations (i.e., pessimism). A large number of research investigations have provided empirical data suggesting that expectancy shifts after failure (or success) are dependent upon the perceived stability of the cause of the prior outcome. Hence, if subjects ascribe failure (or success) outcomes to stable factors such as ability (as seen with lonely subjects) then failure (or success) in similar future

situations will be anticipated with greater certainty than if ascribed to unstable factors (e.g., Fontaine, 1974; McMahan, 1973; Ostrove, 1978; Rosenbaum, 1972; Valle & Frieze, 1976; Weiner, Nierenberg, & Goldstein, 1976). Furthermore, if failure is expected, then motivation for continued efforts in that or similar endeavors may be negatively affected (Weiner, 1974).

Because of the research indicating an association between dimensions of the attribution style of lonely subjects and negative emotions and low self-esteem, researchers in the area of loneliness have begun to explore the specific relationship between the attribution style and various aspects of loneliness. In one such study, Peplau et al. (1979) examined the relationship between depression and attribution style among lonely subjects. Subjects were undergraduate students who rated themselves as moderately to extremely lonely. As in the Michela et al. study (1982), subjects were asked to identify factors causing their loneliness based on the 13 categories of causes of loneliness derived by Berke and Peplau (1976). Subjects completed the Beck Depression Inventory (Beck, 1967a). Analyses comparing nondepressed lonely subjects with depressed lonely subjects found that the depressed lonely subjects were significantly more likely to rate causes of their loneliness as internal, and stable. Hence, subjects scoring high on depression were significantly more likely to identify internal, stable causes for their loneliness (e.g., personality, or physical appearance) than were subjects who scored low on depression. Furthermore, for all lonely subjects, regardless of scores on the Beck Depression Inventory, giving importance to any internal, stable cause was related with reports of feeling depressed and helpless. Results, therefore, indicate that the relationship between loneliness and depression is mediated by causal attributions for loneliness.

In another study by Cutrona and her colleagues (Cutrona, 1982) the relationship between causal attributions and the maintenance of loneliness was assessed. College

undergraduate students were assessed on loneliness and causal attributions for loneliness at three different points over the course of the academic year. At all three points, loneliness was assessed using both self-labeling methods and the UCLA Loneliness Scale (Russell et al., 1978). Additionally, using the 13 categories of causes derived from Berke and Peplau's study (1976), subjects rated how much each cause contributed to their loneliness. To examine the attributions of "chronically lonely" subjects, a subset of subjects was identified who labeled themselves as lonely at all three points, and compared with subjects who identified themselves as lonely in the beginning of the academic year but not lonely at the later points. Students who remained lonely attributed their loneliness to such factors as shyness, fear of rejection, lack of social skills and own personality significantly more so than those whose loneliness decreased. This investigation suggests, then, that attributions for loneliness mediate the maintenance of loneliness.

Research on attribution style has consistently demonstrated that internal, stable attributions for negative events (as opposed to more external, unstable causal attributions) are associated with loneliness (Anderson & Arnoult, 1985; Anderson et al., 1983; Michela et al., 1982), as well as a number of other clinically interesting variables such as depression (Beck & Greenberg, 1974), low motivation (Kukla, 1972), and low self-esteem (Ickes & Layden, 1978; Weiner et al., 1978). Further, such ascriptions have been found to accompany, maintain, or exacerbate emotions (e.g., Riemer, 1975), cognitions (e.g., McMahan, 1973), and behaviors (Weiner, 1974) that are maladaptive. The literature, therefore, clearly suggests that internal, stable ascriptions for negative outcomes are associated with more maladaptation (in the form of low self-esteem, low motivation, and maintenance of psychiatric symptoms) than external, unstable, specific causal attributions for negative events (e.g., Weiner, 1979). As such, the latter appears to be a more

maladaptive attribution style than the former, and will be referred to as such in this study.

While research on attribution style and loneliness contributes to the understanding of the experience of loneliness among white subjects, this research is plagued with two primary limitations. First, the research is largely limited to studies of majority subjects, hence, contributing little to the understanding of the relationship between attribution style and loneliness among subjects of various ethnic groups. Second, these studies rely on correlation analyses, so that the causal role of attribution style with respect to loneliness cannot be determined.

### C. The Role of Culture in the Causal

#### Attributions of Loneliness

The rapidly growing research on loneliness among college students has typically failed to take into account the possible influences of culture. This is so despite 1) the fact that many (sub)cultures exist within the dominant culture in the United States, and 2) the recognition that there are significant variations in relational configurations and norms based on cultural background. Such an oversight is especially surprising given 1) the increasing ethnic minority student enrollment, 2) the difficulties which ethnic minority groups have in adjusting to predominantly white college campus environments (Allen, 1981; Fleming, 1982; Scott, 1978), and 3) the extent of emotional/psychological distress related to loneliness.

There are at least three reasons to suspect that there may be cultural variations in general attribution style as in attributions of loneliness. One is that there is empirical evidence of ethnic differences in attribution style (e.g., Chandler, Shama, Wolf, & Planchard, 1983). A second reason is that cultural groups have been found to differ along dimensions related to loneliness such as self-esteem and internality (Cordova & Jacobs, 1983, Gaugh, Fiorvianti, & Lazzari, 1979; Jourard, 1971; Reimanis, 1977). A third

reason to expect cultural variations in the attribution style of lonely subjects is that cultural groups have been shown to differ in their beliefs regarding the virtues and purposes of loneliness (Hofstatter, 1957).

Self-esteem and internality are variables that have consistently been found to be associated with loneliness. Research demonstrates that lonely subjects score lower than nonlonely subjects on measures of self-esteem (Jones, 1982; Moore & Sermat, 1974; Wood, 1978), and higher on measures of internality for negative events (Anderson & Arnoult, 1985; Anderson et al., 1983; Michela et al., 1982). Similarly, ethnic groups have been found to vary on self-esteem and internality. Ethnic minority subjects have been found to score higher than white subjects on measures of self-esteem when such variables as status and age are controlled (Harris & Stokes, 1978; Simmons, Brown, & Blyth, 1978). Research has also demonstrated ethnic differences in internality so that white subjects consistently score higher on internality than ethnic minority subjects, namely black subjects (Battle & Rotter, 1963; Lefcourt & Ladwig, 1965a, 1965b; Rotter, 1966).

Ethnic differences in factors related to loneliness such as self-esteem and internality suggest that the experience of loneliness may also be affected by ethnicity in terms of the general attribution style of (lonely) subjects and in terms of causal attributions for loneliness. Research demonstrating ethnic differences in internality leads one to expect ethnic differences in the attribution style of lonely subjects. Ethnic group variation in self-esteem also suggests ethnic group differences in attributions for loneliness and for negative events in general, given Weiner's (1979) finding that subjects with low self-esteem are more likely than those with higher self-esteem to attribute loneliness and negative events to internal causes.

Finally, the possibility that different ethnic groups may hold different beliefs about the virtues of solitude may also affect the experience of loneliness. For example, Hofstatter (1957) compared experiences of solitude among Germans and Americans. The

German sample perceived solitude as a positive phenomenon associated with such words as "strong" and "healthy". In contrast, Americans perceived solitude as highly negative, and associated it with fear. The finding that some cultural groups may perceive solitude quite differently suggests that differences may also exist between ethnic groups in the same country given differences in values and experiences between groups (Sue, 1981). If, indeed, solitude is differentially experienced between the groups, it may also be attributed differently.

Evidence of cultural differences in the general attribution literature coupled with these two areas of research providing evidence of cultural differences in factors related to loneliness, indicate that such differences may exist regarding the attribution style of lonely subjects from different groups. If this is true, ethnic differences in the experience of loneliness are suggested given research indicating that attribution style mediates various aspects of loneliness (such as self-esteem and duration/stability, Cutrona, 1982; Peplau et al., 1979). As previously noted, though ethnic differences in loneliness have not been explored, ethnic differences in the similar construct of alienation have been researched and provide further information regarding possible ethnic differences in loneliness.

### Alienation

#### A. Alienation Versus Loneliness

While the rapidly growing research focus on loneliness has typically failed to assess the influence of culture, the construct of alienation has been relatively well researched with respect to ethnicity. Alienation research was considered valuable in the current investigation given the positive relationship between alienation and loneliness (Jones et al., 1981), and the similarity in both the construct descriptions and measurement of loneliness and alienation.

Like loneliness, alienation is considered a dominant theme in the lives of today's college students (Keniston, 1960). Alienation is described as a multidimensional concept comprised of powerlessness, meaninglessness, and social estrangement components (Seeman, 1959). Within this framework, powerlessness is conceived as a feeling of being helpless to control outcomes pertaining to one's own destiny. The meaninglessness component includes a sense of malaise and the feeling of being unable to understand or operate effectively within the social system of which one is a part. Social estrangement refers to feelings associated with the perception of lack of companionship, e.g., rejection, aloneness, desertion, sense of being devalued. According to this conceptualization, alienation is the psychological state that arises when one perceives a generalized discrepancy between his/her expectations and reality with respect to any one, or all of these three components. Loneliness, recall, is described as the psychological state that results from discrepancies between one's desired and actual social relationships (Peplau & Perlman, 1982). Hence, alienation represents a broader concept than loneliness in that it includes not only discrepancies between desired and actual interpersonal relationships, but also discrepancies between one's desired and actual relationship with society in general and with one's perceived ability to affect changes in those relationships. While the latter two components are not usually included in the conceptualization of loneliness, research has demonstrated a relationship between these factors and loneliness. For example, loneliness is positively related to negative views about the social world (Jones et al., 1981; Wilbert & Rupert, 1986), and to internal, stable causal attributions for failure experiences, which suggest perceived helplessness in affecting desired changes (Anderson & Arnoult, 1985; Anderson et al., 1983; Michela et al., 1982).

Because of the similarities between the constructs of loneliness and alienation, especially regarding the overlap of perceived discrepancies between one's desired and actual interpersonal relationships, it is not surprising to find similarities in items

assessing these constructs. Currently, the two primary measures of alienation are the University Alienation Scale (Burback, 1972) and the Dean Alienation Scale (Dean, 1961). Like the Revised UCLA Loneliness Scale (Russell et al., 1980) both scales are comprised of statements which subjects rate according to the degree to which the statements describe their feelings. Items of the three scales emphasize social isolation and are almost indistinguishable. Examples of items from the three scales are "I seldom feel 'lost' or 'alone' at this university" (University Alienation Scale), "Many people are lonely and unrelated to their fellow human beings" (Dean Alienation Scale), and "I do not feel alone" (Revised UCLA Loneliness Scale).

Finally, like loneliness, alienation has been found to be related to negative emotions and cognitive states including apathy (Keniston, 1960), cynicism (Merton, 1947), psychosis (Jaco, 1954) and suicide (Powell, 1958).

It appears that loneliness and alienation are quite similar constructs not only in terms of their respective descriptions, but also in terms of the similarity of items assessing the constructs, and negative adjustment associated with each. In fact, the only difference in these constructs appears to be in breadth, with alienation emphasizing the quality of the individual's one-on-one relationships, as well as those with the larger society and one's perceived control over his/her relationships, in comparison with the construct of loneliness which emphasizes the former only. Because of the significant overlap in constructs, cross-cultural research on alienation was also reviewed to delineate patterns with respect to alienation and possible patterns regarding loneliness.

## B. Alienation and the Ethnic Minority

### College Experience

A truly remarkable social phenomenon has occurred in recent years concerning college attendance in ethnic minorities. As recently as the early 1950s, over 90 percent of black students went to colleges that enrolled black persons exclusively. At the

present time, possibly as many as three-fourths attend colleges whose student bodies (as well as faculties, administration, officers, and staff) are predominantly white (Fleming, 1981a). This has been a dramatic shift for at least two reasons. First, many ethnic minorities attending predominantly white colleges were and still are venturing into living and working circumstances that are very different from what they are accustomed to, and for which they are not well prepared. Second, the white institutions found themselves with kinds of students to which they were quite unaccustomed. Although most universities have increased the number of minority students admitted, for the most part, they continue to rely on traditional student service programs to assist all students, including ethnic minorities. Some universities however, are becoming increasingly sensitized to these issues. Their responses can be observed in increased specialized services, financial assistance, and academic programs, together with vigorous campaigns to recruit professional staff from among the ranks of minority groups. Despite these efforts, progress has been agonizingly slow, and many crucial questions remain unanswered. One of the most serious impediments has been the dearth of empirical data on minority students. The reality has rendered it almost impossible to develop a clear understanding of this student as a functioning individual and of the way in which s/he perceives the world. Since it is only through understanding that effective programs and services can be developed, a knowledge base that accrued from an evolving body of empirical data is needed for the realization of this goal.

Several writers offer insightful descriptions of circumstances encountered by black students on white campuses and the students' perceptions of those circumstances (Allen, 1981; Barnes, 1972; Cardoso, 1969; Davis & Borders-Patterson, 1973; Fleming, 1981b; Gibbs, 1973; Harper, 1975; Pruitt, 1970; Smith, 1981; Walker, 1976). A great deal of the literature is limited to such descriptions on the basis of the personal experiences and observations of the authors rather than on systematic empirical investigation.

Consequently, several writers in recent years have stressed the need for systematic research (Allen, 1981; Braddock, 1981; Scott, 1978; Willie, 1969).

Of those studies that are empirical, most are survey studies employing questionnaires and/or interviews (Allen, 1981, 1982; Boyd, 1974; Davis & Borders-Patterson, 1973; Fleming, 1981b, 1982; Golden, Garver, Murphy, & Weldon, 1980; Hedgegard, 1972; Jones, Harris & Hauch, 1975; Kleinbaum & Kleinbaum, 1976; Morgan, 1970; Walker, 1976; Willie, 1981; Willie & Levy, 1972; Willie & McCord, 1972). In only a few of those instances are there statistical analyses or systematic presentation of results.

Fewer than a dozen studies attempt any sort of controlled investigation in the sense of comparing the different groups of students on systematically measured characteristics of stress (Babbit, Burbach, & Thompson, 1975; Baker, 1976; Braddock, 1978, 1981; Burbach & Thompson, 1971, 1973; Hedgegard, 1972; Hedgegard & Brown, 1969; Pfeiffer & Schneider, 1974; Suen, 1983; Tate & Barker, 1978; Young, McAnulty, & Daly, 1981). For example, Burbach and Thompson (1971) compared black, Puerto Rican, and white college freshmen on the Dean Alienation Scale (Dean, 1961). Results showed that black subjects scored highest on each subscale of alienation (i.e., Powerlessness, Normlessness, and Social Isolation), while Puerto Rican subjects scored lowest (high scores indicate a greater sense of alienation). Results also showed that the two minority groups differed significantly on Social Isolation and on total scores for the Dean Alienation Scale. A similar study was conducted by Suen (1983) using the University Alienation Scale (Burbach, 1972) to compare black and white college students in a predominantly white college on alienation. The results showed that blacks scored significantly higher on all dimensions of alienation and significantly higher on both social estrangement, and overall alienation.

Most investigators have been interested in the social aspects of black students' adjustment to the predominantly white campus (Allen, 1982; Babbit et al., 1975; Braddock,

1978; Burbach & Thompson, 1971; Gibbs, 1974; Suer, 1983; Willie, 1981; Willie & Levy, 1972). Many have also been concerned with academic adjustment (Allen, 1982; Braddock, 1981; Dawkins & Dawkins, 1980; Gibbs, 1974; Kilson, 1973a, 1973b; Kleinbaum & Kleinbaum, 1976; Tate & Barker, 1978; Willie & McCord, 1972); and a few focus on personal/emotional problems (Gibbs, 1974; Gold et al., 1980; Tate & Barker, 1978; Young et al., 1981). For example, Gibbs (1974) presented case studies of black students who sought counseling at a mental health clinic at a predominantly white college due to complaints of identify conflicts or stress attributed to cultural adaptation. The types of responses black students employed in coping with such conflicts were investigated. Four different types of adaptation were identified based on orientation toward the dominant culture: movement with the dominant culture, i.e., affirmation; movement against the dominant culture, i.e., separation; movement toward the dominant culture, i.e., assimilation; movement away from the dominant culture, i.e., withdrawal. Withdrawal was the most frequently employed mode. This was true regardless of the student's social economic status, previous high school integration, or ability to handle academic tasks. However, the limits of this study are selection bias, and lack of objective measures, so that results are suggestive at best. Tate and Barker (1978) studied black and white applicants to a counseling center of a predominantly white college to determine any differences in the students' definitions of psychological distress, and whether groups differ in the types of concerns that they present to counseling services with respect to race. Subjects were black and white students who were matched according to age, sex, and marital status. Student concern was assessed using a checklist of items covering a variety of problem areas thought to be typical of college students, i.e., financial difficulties, academic problems and personal/social concerns. The results showed that the black students were concerned about more problem areas than white students.

Similarly, black literature describing the experience of black students on predominantly white campuses notes the ethnic minority student as suffering from a variety of unique difficulties of an academic, social and personal nature, in addition to adjustment problems common to all new college students (Burbach & Thompson, 1971; Pfeifer & Schneider, 1974; Suen, 1983). Emotional difficulties related to minority status (e.g., cultural conflict, SES inequities, and institutionalized racism) include depression, withdrawal, alienation (self- or other-imposed) and lack of support from the general environment, paranoia, fear of failure and hostility (Harper, 1969; Kilson, 1973). Likewise, evidence of similar difficulties among the black population at large can be found in the writings of black authors (e.g., Baldwin, 1962; Carmichael & Hamilton, 1967; Malcolm X, 1964).

Fewer studies have examined the reactions of Hispanic college students in predominantly white colleges. This literature is very recent and limited, and mixed results have been reported. For example, one study comparing Hispanic and white college students on stress reported in four domains—personal, familial, academic, and financial. Hispanic subjects reported more overall stress than white subjects (Munoz & Garcia-Bahne, 1978). A second study comparing the same ethnic groups in a different geographical location (California rather than Texas) failed to find similar ethnic group differences.

Similarly, using the College and University Environment Scales, Garza and Nelson (1973) investigated the needs of Hispanic students in higher education. Comparing the perceptions of Hispanic and white college students, the researchers found that Hispanic students experienced more discomfort with the campus environment than did their white peers. However, Widlak and Garza (1975) reported that Hispanic students held more favorable perceptions of the university community than whites although whites reported higher grade point averages, family income, and educational level of parents.

Finally, Madrazo-Peterson and Rodriguez (1978) assessed the environmental perceptions of black, Native American, and Hispanic college students with respect to unmet needs in such areas as affiliation, financial assistance and academic programs. They administered the College Student Questionnaire (Peterson, 1968) and the Environmental Satisfaction Questionnaire (Corazzini, Wilson, & Huebner, 1976). Reliability and validity information for these measures was not reported. Only one significant difference between the three groups was found. Black students reported significantly greater feelings of isolation than either Native American or Hispanic counterparts. The results also showed that the area of greatest concern within the sample was social isolation, followed by financial difficulties, lack of opportunity for identity clarification, academic advising, and lack of opportunity to feel personally valued, in descending order of importance.

A review of the research on black college students consistently finds that black subjects report more difficulty with college adjustment when assessed in terms of alienation (as well as a number of other areas such as academics and financial matters) than do their peers of different ethnicities. In contrast, research on Hispanic college subjects yields mixed results regarding college adjustment and feelings of alienation. While some studies show that Hispanic college students report difficulties similar to those of black students, such as dissatisfaction with the campus environment, other studies fail to replicate such findings.

#### Factors Influencing Ethnic Minority Adjustment

In reviewing the literature, setting appears to play an important role in minority college student adjustment. Almost all of the studies cited report that black students in predominantly white colleges, as opposed to those in predominantly black institutions, report more difficulties in the various aspects of college adjustment (e.g., Braddock, 1978; Graham, Baker, & Wapner, 1985; Jones et al., 1975). Furthermore, it appears that the

surrounding campus community is also important in minority college student adjustment and satisfaction (Jones et al., 1975; Madrazo-Peterson & Rodriguez, 1978). For example, Mendoza (1980) found differences with respect to reported stress by Hispanic college students in Texas, as opposed to those in a California sample. Also, Burbach and Thompson (1971) found that Puerto Rican college students reported fewer feelings of alienation and social isolation than both their black and white counterparts at a predominantly white college. This finding was attributed, in part, to the nature and percentage of the Puerto Rican population within the city in which the university was located. Hence, both the nature of the college campus and the local community appear to impact (minority) college student adjustment.

Other factors also seem to affect ethnic minority college student adjustment to the predominantly white college. Though ethnic minorities on these campuses tend to exhibit more difficulties (both psychosocially and academically) than white peers, research demonstrates that there are differences within these groups. Allen (1982) found that various demographic variables and perceptions of one's social world were related to the extent to which black students on a predominantly white campus felt alienated. In this study, 135 black students at a major Southern university completed a mail-distributed questionnaire which assessed "student characteristics, problems, and needs" (Allen, 1981, p. 131). The questionnaire was not described beyond this. Allen found that alienation was greater among students having better educated siblings, higher high school grades, more academic anxiety, and more years living in a two parent family. Alienation was lower among students who had better employed fathers, and more positive evaluations of campus race relations and of the college's support of black students. Furthermore, Graham et al. (1985) found that blacks in predominantly white New England colleges fared better in terms of academics, social/personal involvement, and institutional attachment when they had had previous interracial experiences in their neighborhoods,

high schools, and high school friendships. The authors posited that prior interracial contact afforded students increased familiarity and competence in dealing with the other culture(s).

To summarize, the literature thus far indicates that there are fundamental differences in the college experiences of different ethnic minority groups, and that the campus and community environments are critical aspects of those experiences. As previously mentioned, the literature shows that though some within-group differences may exist based on background and perceptual variables (Allen, 1982; Graham et al., 1985), black students in predominantly white colleges, in comparison with white students at the same colleges, generally experience more difficulties in adjusting to college life, perform less well academically, are generally less satisfied with college, perceive the university climate more negatively, and have higher attrition rates. The literature further indicates that black students experience greater feelings of social isolation and perceive the campus environment more negatively than their Hispanic peers. However, given the limited research on Hispanic college students in predominantly white colleges and the mixed results reported, such a conclusion is tentative at best.

#### Purpose

Although the literature provides a source of knowledge about loneliness among white college students, it is deficient in information concerning loneliness in ethnic minority students.

It is important to emphasize that the current investigation is cross-cultural in that it involved (sub)cultures that exist within the same different dominant culture, that is, black Americans and Mexican Americans living within the United States' dominant white society. Hence, the present study concerned minorities in a majority setting. This is in direct contrast to cross-cultural studies of different dominant cultures of different countries. This distinction is important given that 1) research consistently reveals

significant differences between minority college students on majority campuses versus those on minority-majority campuses (Braddock, 1978; Graham et al., 1985; Jones et al., 1975), and 2) research demonstrates systematic differences in adjustment between minorities on predominantly white campuses in different community settings (Burbach & Thompson, 1971; Mendoza, 1980).

The purpose of the present investigation was to assess cross-cultural variability in previously reported correlates of loneliness and to explore the role of attribution style in those differences. This study was undertaken with the belief that an empirical study of loneliness and ethnicity in a sample of black, Hispanic, and white college students would offer a profitable contribution to the loneliness literature by elucidating ethnic differences in the conceptualization of loneliness, thus far based entirely on research of majority subjects. Beyond contributing to theoretical knowledge by exploring the attribution style and psychosocial adjustment of lonely ethnic minority college students, a greater understanding of differences in the experience of loneliness in different ethnic groups might help to identify potentially useful clinical interventions. Finally, this investigation was undertaken with the hope that the current study will stimulate further research of ethnic minority group fit within existing psychological theory and practice.

Research on white college students indicates that they attribute loneliness to internal factors such as personality and physical unattractiveness (Anderson et al., 1983; Anderson & Arnoult, 1985; Michela et al., 1982). There is, however, no research examining attributions for loneliness among other ethnic groups, nor is there evidence to indicate that the pattern found among white college students generalizes to ethnic minority college students. In fact, given the research on ethnic minority students' perceptions of predominantly white colleges, the contrary is suggested. That is, feelings of alienation are consistently reported in conjunction with dissatisfaction in the campus environment (Gibbs, 1973; Sedlacek & Brooks, 1970; Willie & McCord, 1972). Furthermore,

whereas white college students have access to same-race peers, ethnic minority college students, to a large extent, do not. As a result of their minority status, research on ethnic minority college students consistently reveals reported experiences of racism, prejudice, and discrimination both on campus and in the local community (Allen, 1981; Madrazo-Peterson & Rodriguez, 1978; Smith, 1981). These experiences coupled with minority students' perceptions that the university and community activities are directed toward white members in the environment likely result in external attributions for loneliness and other negative events associated with the campus environment.

In the current study, inventories were administered to assess the attribution style and degree of academic, psychological and social adjustment among lonely and nonlonely college subjects of three different ethnic groups (blacks, Hispanics, and whites). All subjects completed a demographic questionnaire, the Revised UCLA Loneliness Scale (Russell et al., 1980), a measure of attributions for loneliness, the Attribution Style Questionnaire (Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982), the Rosenberg Self Esteem Inventory (Rosenberg, 1965), the Symptom Checklist 90 - Revised (Derogatis, 1977), the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), and a measure of college satisfaction. Information regarding the extent and quality of interracial experiences was also obtained on the latter measure for black and Hispanic subjects, as these variables have been found to be significantly related to both college satisfaction and feelings of alienation on campuses (Allen, 1981; Graham et al., 1985).

A number of hypotheses were generated for the three groups of self-selected subjects—black, Hispanic, and white—who were matched on loneliness and social economic status. Hypotheses were categorized into primary hypotheses, i.e., those most central to the current investigation's goal of examining ethnic differences in the experience of

loneliness, and secondary hypothesis. Two primary and eight secondary hypotheses were generated.

- H1: The first primary hypothesis was that lonely white subjects would attribute loneliness to internal deficits whereas lonely black and Hispanic subjects would ascribe loneliness to more external, situational factors. The reasoning for this prediction was three-fold. First, the fact that both black and Hispanic subjects were in the minority and consequently lacked the opportunity to affiliate with same-race peers provided a salient explanation for their loneliness which was not available to white peers. Second, the majority culture differs from both black and Hispanic cultures by emphasizing values such as self-determinism, which is likely to foster internal focus and the importance of one's action on the environment, rather than interaction with or direction by the environment. Indeed, research supports such differences in value systems (Sue, 1981) which may affect attribution style. The research also shows that ethnic minority students on predominantly white campuses consistently report concurrent experiences of dissatisfaction with campus environments and a sense of alienation (Gibbs, 1974; Madrazo-Peterson & Rodriguez, 1978; Pfeiffer & Schneider, 1974; Sedlacek & Brooks, 1970; Suen, 1983; Willie & McCord, 1972). It was, therefore, likely that any feelings of loneliness would be viewed in relationship to the campus environment, and so attributed. Finally, psychological research of ethnic differences in locus of control consistently find that white subjects score higher on internality than ethnic minority subjects (Battle & Rotter, 1963; Lefcourt & Ladwig, 1965a, 1965b; Rotter, 1966).
- H2: The second primary hypothesis was that lonely white subjects would score lower on psychological adjustment in comparison to lonely black and lonely Hispanic subjects. This hypothesis was based on two lines of reasoning. First, because lonely white subjects were expected to score higher than ethnic minority subjects on

internal/stable causal attributions for loneliness and failures, in general, they were, therefore, expected to experience more stress related to loneliness specifically. This hypothesis is supported by research on negative effects of self-blaming tendencies on affect, cognitions, and behavior (e.g., McMahan, 1973; Reimer, 1975; Weiner, 1974), as well as research showing a relationship between the reduction of such tendencies and the reduction of dysfunctional feelings and behaviors (e.g., Dweck & Goetz, 1978; Storms & McCaul, 1976). Another reason loneliness may be associated with more psychological maladjustment for white subjects as opposed to ethnic minority subjects is that unlike the latter, white subjects were in a setting, both on and off campus, in which they were surrounded by in-group members which, in itself, provides a sense of identity, belonging, and reference (Allport, 1954). While there may be other factors affecting the psychological adjustment of ethnic minority subjects other than loneliness (e.g., financial stressors or academic problems), to feel lonely in such an environment of social opportunity suggests maladjustment beyond that expected from problems with obvious external origins, such as those of ethnic minority subjects.

- H3: The third hypothesis was that nonlonely blacks and Hispanics would score lower on psychological adjustment than nonlonely white subjects. This prediction is consistent with previous research showing that ethnic minority students on a majority campuses have more difficulty in general (other than loneliness) than do white, majority students (Allen, 1982; Fleming, 1982; Jones et al., 1975; Scott, 1978; Tate & Barker, 1978).
- H4: It was also expected that, in general, black and Hispanic subjects would score lower on psychological adjustment than white subjects because ethnic minorities do suffer from a greater array of problems as indicated in the literature (Allen, 1981; Fleming, 1981b; Jones et al., 1975; Scott, 1978; Tate & Barker, 1978). This

hypothesis was made despite the fact that a main effect of ethnicity for psychological adjustment could be eliminated if the hypothesis that lonely ethnic minorities would score higher than lonely white subjects on psychological adjustment, and the hypothesis that nonlonely ethnic minorities would score lower than white subjects on psychological adjustment were, indeed, true. However, a main effect of ethnicity could only be eliminated if lonely and nonlonely groups within ethnicity are equal in size, and if subjects within each subgroup score in equally opposite directions on psychological adjustment. That is, if for every lonely black or Hispanic subject who scores, for example, one point higher than a lonely white subject on psychological adjustment, a nonlonely black or nonlonely Hispanic subject scores one point lower than a nonlonely white subject on psychological adjustment, then the main effect of ethnicity for this variable would be eliminated. Since it was not likely that these conditions would be met, a main effect of ethnicity for psychological adjustment was predicted.

H5: The fifth hypothesis was that black and Hispanic subjects, overall, would score higher on loneliness and on social satisfaction than white subjects since, in comparison to white subjects, ethnic minority subjects would have less opportunity to associate with in-group members, an experience thought to contribute to one's sense of belonging (Allport, 1954). Further, ethnic minority subjects were likely to have a smaller pool of potential friends/contacts both on campus and in the community due to their ethnic minority status and issues of discrimination and racism. This hypothesis is supported by research showing that ethnic minority subjects score higher on related measures of alienation and social isolation (Burbach & Thompson, 1971; Garza & Nelson, 1973; Madrazo-Peterson & Rodriguez, 1978; Suen, 1983). It was further likely that black students would score higher on loneliness than Hispanic subjects simply because, in the current investigation,

Hispanics were better represented both on and off campus, hence, increasing their opportunities to associate with in-group members, and broadening their range of potential contacts.

- H6: It was expected that subjects would differ on general attribution style with respect to ethnicity. It was hypothesized that white subjects would score higher than black and Hispanic subjects on internality for negative outcomes, and that black and Hispanic subjects would score higher on internal attributions for positive outcomes. The reasoning for this hypothesis is two-fold. First, because ethnic minorities are subject to institutionalized obstacles, they have a salient external cause to which negative outcomes can be attributed. Second, the majority culture focus on self-determinism is likely to foster a more internal focus among whites, than are the cultures of black and Hispanic Americans. Research demonstrates that white subjects, in general, score higher on internality than ethnic minority subjects (Battle, 1965; Lefcourt & Ladwig, 1965a; Rotter, 1966). However, because of the institutionalized obstacles that ethnic minorities face, achievements are likely to be thought of as requiring more effort and skill than achievements of white subjects, resulting in more internal attributions for positive outcomes among ethnic minorities. This hypothesis is supported by research demonstrating that when such factors as social economic status are controlled, ethnic minority subjects, namely blacks, score higher on self-esteem than nonminority subjects (Harris & Stokes, 1978; Simmons et al., 1978).
- H7: It was also hypothesized that lonely subjects would attribute loneliness, and negative outcomes in general to internal, stable causes more than nonlonely subjects. This hypothesis is consistent with previous research in which internal, stable attributions for loneliness and negative events have consistently been

demonstrated to be higher among lonely as opposed to nonlonely subjects (Anderson & Arnoult, 1985; Anderson et al., 1983; Michela et al., 1982).

- H8: It was expected that lonely subjects would score lower on psychological adjustment and self-esteem than nonlonely subjects both in general and within their respective ethnic group simply by virtue of suffering from one more stressor. Literature demonstrating the emotional distress associated with loneliness supports this hypothesis (Anderson, 1978; Anderson et al., 1983; Horowitz & French, 1979; Jones et al., 1981; Perlman et al., 1978; Russell et al., 1978). Additionally, if lonely subjects do, indeed, attribute negative outcomes to internal causes as hypothesized, then lower scores on psychological adjustment and self-esteem would be expected as demonstrated in the literature (Cutrona, 1982; Peplau et al., 1979).
- H9: It was also expected that there would be a strong relationship between both internal and stable causal attributions for failure and low self-esteem and psychological adjustment. This hypothesis is supported by research in other areas demonstrating a relationships between internal, stable causal attributions for failure and low self-esteem, negative affect, and maladaptive behavior (e.g., low motivation, Weiner et al., 1978, 1979).
- H10: The final hypothesis was that within both ethnic minority groups, differences would exist with respect to loneliness and previous contact with the majority culture. That is, lonely black subjects would report less direct contact with whites than nonlonely black subjects, as would lonely Hispanic subjects. The reasoning for this hypothesis is that contact with the majority culture is likely to mediate knowledge of that culture and, hence, some degree of comfort in operating within the majority framework. This hypothesis is based on research by Allen (1982) and Graham et al. (1985) in which alienation among black college students was found to be negatively related to interracial contact.

## CHAPTER 2

### METHOD

#### Overview

In the current investigation, subjects were assessed on a number of different variables with respect to ethnicity and level of loneliness. Subjects of three different ethnic groups were included—black, Hispanic, and white. Ethnicity was self-identified on the Demographic Questionnaire. Subjects were divided into the following two groups: lonely subjects, that is, those who scored above the sample median on the Revised UCLA Loneliness Scale, and nonlonely subjects, i.e., those who scored at or below the median on the Revised UCLA Loneliness Scale. Subjects were run in groups of three to six and according to ethnicity since the present study was concerned with ethnic issues. Research demonstrates that self-disclosure increases regarding ethnic issues in particular, when subjects are among members of their own ethnic group (Sattler, 1970). This study consisted of subjects completing experimental packets made up of the following: Demographic Questionnaire, Revised UCLA Loneliness Scale (Russell et al., 1980), Attribution of Loneliness Scale, Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), Attribution Style Questionnaire (Peterson et al., 1982), Rosenberg Self Esteem Inventory (Rosenberg, 1965), Symptom Checklist 90 - Revised (Derogatis, 1977), and a College Satisfaction Scale. Lonely versus nonlonely subjects of the three groups were compared on the various measures.

#### Subjects

A total of 83 black, Hispanic, and white undergraduate college students participated in the current study, described as an investigation of the relationship between student characteristics and satisfaction with the present university. Due to the small number of black and Hispanic subjects enrolled in the present university, the latter were actively recruited via advertisements in the campus newspaper, and fliers circulated on campus.

Subjects included 16 black females, 10 black males, 12 Hispanic females, 14 Hispanic males, 14 white females, and 17 white males. All subjects were either second semester sophomores or juniors at the University of Arizona; no University of Arizona athletes participated in the current study. Subjects participated on a voluntary basis either for credit toward a psychology course requirement or for money, i.e., \$4.00. Four subjects participated out of interest only, and declined the above mentioned incentives. All such subjects were Hispanic. Data from all subjects were used.

### Materials

Each subject received an experimental packet which included a Demographic Questionnaire, the Revised UCLA Loneliness Scale (Russell et al., 1980), Attribution of Loneliness measure, Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), Attribution Style Questionnaire (Peterson et al., 1982), Rosenberg Self Esteem Inventory (Rosenberg, 1965), Symptom Checklist 90 - Revised (Derogatis, 1977), and a College Satisfaction measure.

#### A. Demographic Questionnaire

A Demographic Questionnaire was included in the experimental packet and served two primary functions. First, this measure was used to obtain subjects' grade point averages, which were considered a behavioral index of subjects' academic adjustment to the university. Second, this questionnaire was used to obtain information necessary for matching subjects, such as ethnicity, age, social economic status, sex, and number of years in attendance at the present university. See Appendix A for a copy of this measure.

#### B. Revised UCLA Loneliness Scale

The Revised UCLA Loneliness Scale (Russell et al., 1980) was selected to assess the extent of loneliness because it is self-administered, short and relatively well validated. The Revised UCLA Loneliness Scale (presented in Appendix B) is a unidimensional

measure of loneliness consisting of 10 positively and 10 negatively worded items. Subjects indicate how often they feel the way described in each of the 20 statements on a scale of 1 to 4, ranging from "never" to "always". Total scores may range from 20 to 80. The mean scores for female and male undergraduate college students are 36.06 to 37.06, respectively (Russell et al., 1980). Russell et al. (1980) examined the reliability and validity of the Revised UCLA Loneliness Scale using a sample of 162 college students. They reported an internal consistency alpha coefficient of .94 for the Revised UCLA Loneliness Scale. Concerning test-retest reliability, Jones (Cited in Russell et al., 1978) found a correlation coefficient of .73 over a two month period, while Cutrona (1982) reported a correlation of .62 over a seven month period.

Russell et al. (1980) also examined the validity of the Revised UCLA Loneliness Scale. Regarding construct validity Russell et al. found that loneliness scores correlated in the expected fashion with measures of emotional states: Beck Depression Inventory (Beck, 1967a) ( $r = .62$ ); Costello-Comrey Anxiety Scale (Costello & Comrey, 1967) ( $r = .32$ ). In a second study of 237 undergraduate students criterion validity was demonstrated when Revised UCLA Loneliness Scale scores were significantly related in the expected fashion with social activities such as the amount of time spent alone each day ( $r = .41$ , Russell et al., 1980). Discriminant validity was also assessed (Russell et al., 1980) given the high correlations between loneliness scores and those of other emotional states such as depression and anxiety. Russell et al. examined the correlations between loneliness scores and subjects' self-labeling indices of loneliness, depression and self-esteem. While loneliness correlated highly with all three self-labeling indices, after eliminating the variance explained by depression and self-esteem (via regression analyses) researchers found that the loneliness index was still a significant predictor of loneliness.

To conclude, the Revised UCLA Loneliness Scale is highly valid and reliable both in assessing loneliness and discriminating between loneliness and other related constructs.

The researchers do note, however, that social desirability may be a factor in reporting loneliness, given that social desirability appears to be negatively related to reported loneliness (e.g., Gordon, 1976). Because of the social stigma attached to loneliness, social desirability was also assessed in the current investigation.

### C. Marlowe–Crowne Social Desirability Scale

Social desirability was assessed because of the vulnerability of self-report measures of self-concept, especially loneliness, to social desirability (Gordon, 1976). The Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1960) (presented in Appendix C) was selected to assess social desirability because it is relatively brief, self-administered, and well validated. The Marlowe–Crowne Social Desirability Scale was designed to assess social desirability in such a way as to minimize the implication of psychopathology associated with socially undesirable responses. This is a 33-item true/false scale with 18 items keyed true, and 15 keyed false. Crowne and Marlowe (1960) examined the reliability and validity of their scale using samples of college students. Good reliability was demonstrated using both internal consistency (K-R 20 alpha coefficient of .88) and test-retest methods (correlation coefficient of .89 for a one month interval). Concurrent and construct validity were also demonstrated. Concurrent validity was demonstrated by significant, positive correlations between the Marlowe–Crowne Social Desirability Scale and the K (social desirability) and L (lie) scales of the MMPI (Hathaway & McKinley, 1943), and significant, negative correlations with the F (infrequency/validity) scale of the MMPI. Construct validity was demonstrated through significant, positive correlations between the Marlowe–Crowne Social Desirability Scale and other measures of social desirability (e.g. the Edwards Social Desirability Scale, Edwards, 1957). Finally, Crowne and Marlowe also found that independent judges rated the socially undesirable responses of the Marlowe–Crowne Social Desirability Scale as significantly more neutral than those of other measures of social desirability, such as the Edwards Social Desirability Scale,

which were judged as implying more maladjustment. Hence, this scale appears to be a reliable and valid measure of social desirability without the implications of abnormality of other such measures.

#### D. Attribution Style Questionnaire

The Attribution Style Questionnaire (Peterson et al., 1982) was selected to assess general attribution style because it is virtually the only procedure for assessing attribution that is standardized and accompanied by information of its psychometric properties. The Attribution Style Questionnaire consists of 12 hypothetical situations, six with positive outcomes, and six with negative outcomes. For each situation subjects are asked to name one major cause of the outcome described. Subjects then rate each cause on a seven-point scale for the degree of internality, stability, and globality. Scores for each of the three dimensions are derived for both positive and negative outcomes, resulting in the following six subscales: Internal-Negative, Stable-Negative, Global-Negative, Internal-Positive, Stable-Positive, and Global-Positive. Two composite scale scores are also derived from summing across the three dimensions of internality, stability and globality for both positive and negative outcomes, resulting in Composite Positive and Composite Negative subscales. Finally, the relative strength of internal, stable, global attributions for positive outcomes in comparison to internal, stable, and global attributions for positive outcomes in comparison to internal, stable, and global attributions for the negative outcomes is assessed by the final composite subscale, Composite Positive Minus Composite Negative. See Appendix D for a copy of this measure.

Reliability of the Attribution Style Questionnaire has been examined via internal consistency and test-retest methods. Peterson et al. (1982) found satisfactory alphas for the Composite Positive and Composite Negative subscales (.75 and .72, respectively) though less satisfactory alphas for individual dimensions were reported (.44 to .69).

Similar internal consistency alphas have been reported by Golin, Sweeney, and Shaeffer (1981) and Manly, McMahon, Bradley, and Davidson (1982). Test-retest correlations over a five week period yielded evidence of stability of scores for the Composite Positive and Composite Negative subscales with coefficients of .70 and .69, respectively, and coefficients for individual dimensions ranging from .58 to .69. Golin et al. reported similar test-retest reliability coefficients over a four week period.

Validation of the Attribution Style Questionnaire (Peterson et al., 1982) has been achieved primarily through studies which have utilized concurrent validity methods, e.g., the relationship between the Attribution Style Questionnaire and depressed mood. Seligman, Abramson, Semmel, and Von Baeyer (1979) assessed the relationship between the Attribution Style Questionnaire and various measures of depression such as the Beck Depression Inventory (Beck, 1967a) and the Multiple Affect Adjustment Checklist (Zuckerman & Lubin, 1965). Results showed all the correlations for negative outcomes to be significant in the predicted positive direction, with the Composite Negative subscale correlating at the .01 level or below with the Beck Depression Inventory and the Multiple Affect Adjustment Checklist. Further, Internal-Negative, Stable-Negative, and Global-Negative correlated positively with the severity of depression as measured by the Beck Depression Inventory and the Multiple Affect Adjustment Checklist, though to a lesser degree than the composite subscale, Composite Negative. Data from independent investigators assessing the relationship between the Attribution Style Questionnaire and depressed mood also yield significant, though more modest correlations in the predicted direction (Cutrona, 1983; Eaves & Rush, 1984; Golin et al., 1981; Manly et al., 1982).

To conclude, the Attribution Style Questionnaire (Peterson et al., 1982) appears to be a helpful measure in assessing attribution style, especially when composite scores are used. Good to moderate reliability of both individual and composite scores is evidenced. Adequate validity of composite scores is demonstrated in correlations with measures of

depression. Since the composite subscales have consistently demonstrated more adequate levels of reliability and validity than the individual scales, the composite scales were used to test the hypotheses of the current investigation.

#### E. Measure of Attributions for Loneliness

In addition to general attribution style, the current investigation was concerned with specific causal attributions for loneliness. However, no measures specific to the causal attributions for loneliness exist; therefore, a measure to assess attributions for loneliness was developed for the purposes of this investigation. A copy of this measure is presented in Appendix E. Research demonstrates that lonely subjects attribute loneliness, as well as other negative events to internal, stable causes (Anderson & Arnoult, 1985; Anderson et al., 1983; Michela et al., 1982). Consequently, the measure of attributions for loneliness emphasized those dimensions of attributions style, including globality. Globality, the third dimension of attribution assessed by the Attribution Style Questionnaire (Peterson et al., 1982) was also included in order to allow for comparisons between general attribution style and causal attributions specific to loneliness. These three dimensions were also included due to the fact that they have been identified as important components of attribution style in general (e.g., the Attribution Style Questionnaire, Peterson et al., 1982). This measure consists of six questions such as, "When I am lonely it is due to something about myself." This item was included to assess the extent of internal causal attributions for loneliness, and is referred to as Internality. Five other statements were included on this measure, and are referred to as Internal-Stable, Internal-Global, Externality, External-Stable, and External-Global. Responses to all six statements were rated on a scale from 1 = "not at all" to 9 = "very much".

#### F. Symptom Checklist 90 - Revised

Overall psychological adjustment was assessed using the Symptom Checklist 90 - Revised (Derogatis, 1977). Though lengthy, this instrument was chosen because it is a multidimensional self-report symptom inventory with acceptable levels of validity and reliability, and is capable of providing quantitative information for assessing the depth of maladaptation. This measure is a 90-item inventory designed to evaluate global, dimensional, and symptomatic levels of psychological distress. Each item is rated on a five-point scale, ranging from 0 (not at all distressed) to 4 (extremely distressed). The Symptom Checklist 90 - Revised is scored and interpreted with respect to nine primary symptom dimensions which include somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychotism. In addition, three global indices of distress are also induced on this measure which serve to reflect the level or depth of the individual's distress. These three indicators are the following: Global Severity Index, which combines information on the number of symptoms and intensity of perceived distress; Positive Symptom Distress Index, which is a pure measure of intensity of perceived distress, corrected for the number of symptoms; Positive Symptom Total, which is a measure of the number of symptoms reported, regardless of the intensity of these symptoms. Raw scores are obtained on each of the nine symptom dimensions as well as on the three global indices. Normative data is available in the manual (Derogatis, 1977). A copy of this measure is presented in Appendix 7.

Reliability of the Symptom Checklist 90 - Revised (Derogatis, 1977) symptom dimensions were measured through the utilization of both internal consistency and test-retest reliability methods (Derogatis, Rickels, & Rook, 1976). Alpha coefficients for internal consistency were found to be satisfactory, ranging from .77 to .90 for a sample of 219 subjects. Test-retest reliability was determined utilizing the data from a sample

of 94 subjects. The reliability coefficients ranged from .78 to .90 over a one week period. Additionally studies of factorial invariance (the consistency of symptom dimensions) have demonstrated excellent levels of invariance for all nine symptom dimensions across the parameter of sex (Derogatis & Cleary, 1977a)

Validation of the Symptom Checklist 90 - Revised has been achieved through studies which have utilized criterion-oriented concurrent, criterion-oriented discriminative, and concurrent validation methods. Derogatis and Cleary (1976b) contrasted the symptom dimension scores on the Symptom Checklist 90 - Revised with scores on the MMPI (Hathaway & McKinley, 1943) and found a high degree of convergent validity. Construct validity of this measure was examined in a study involving 1,002 subjects. The results of a factor analysis revealed that there is an excellent match between the empirical structure and the theoretical symptom dimensions.

To summarize, the Symptom Checklist 90 - Revised (Derogatis, 1977) is a widely used and well researched clinical assessment instrument designed to evaluate levels of psychopathology. While adequate levels of reliability and validity have been achieved for both individual and global scales, of the three global indices, Global Symptom Index has been found to represent the best single indicator of current level or depth of disorder (Derogatis, 1977). As such, the three global indices were used to test the hypotheses of the current study.

#### G. Rosenberg Self Esteem Inventory

The Rosenberg Self Esteem Inventory (Rosenberg, 1965) was chosen as a measure of self-esteem because it is one of the briefest self-administered measures of self-esteem with evidence of both validity and reliability (See Appendix G). The Rosenberg Self Esteem Inventory was designed to measure global self-esteem. The scale consists of 10 statements which subjects rate on a four-point scale ranging from "strongly disagree" to "strongly agree". Concurrent validity was assessed by Silber and Tippet (1965) who

correlated the Rosenberg Self Esteem Inventory against three other self-esteem measures including the Kelly Repertory Test ( $r = .67$ ) the Heath Self-Image Questionnaire ( $r = .83$ ) and interviewers' ratings of self-esteem ( $r = .65$ ). These convergent validities are among the highest in cross-instrument correlations of self-esteem measures (Wylie, 1974). With respect to concurrent validity, the Rosenberg Self Esteem Inventory was found to correlate significantly with other variables in the expected fashion. For example, this scale was found to correlate negatively with measures of depression, anxiety, psychosomatic symptoms (Kaplan & Pokorny, 1969; Rosenberg, 1965), interpersonal insecurity, and social inactivity (Rosenberg, 1965). Regarding reliability, Rosenberg obtained a coefficient of reproducibility of .92, while Silber and Tippet obtained a two-week test-retest reliability coefficient of .85.

To summarize, the Rosenberg Self Esteem Inventory (Rosenberg, 1965) brief though it is, has demonstrated both convergent and construct validity, and excellent reliability. It is important to note, however, that this scale is quite vulnerable to deliberate distortion as is true of self-report scales purporting to measure conscious self-concept (Wylie, 1974). Hence, assessment of social desirability was also necessary in the current investigation.

#### H. Measure of College Satisfaction

A measure of college satisfaction was also included and is presented in Appendix H. While such measures have been published, the one used in the current investigation was developed strictly for the purpose of this study. This measure was designed, in part, to assess subjects' degrees of social satisfaction in the present campus environment. Hence, this form consisted of such items as, "How satisfied are you with your social life at the University of Arizona?" and "If you had a second chance to choose a college, how likely is it that you would choose the University of Arizona again?" Both items were rated on a nine-point scale where 1 = "not at all" and 9 = "very much". These two items together

made up the measure of Social Satisfaction, as it was expected that subjects who are the most satisfied socially would also be the most likely to choose the present university again. In addition to assessing social satisfaction, this measure was also developed to assess the degree to which subjects' perceive their ethnicity as playing a role in their social satisfaction at the present university. Research has demonstrated that ethnic minority students on predominantly white campuses frequently attribute their dissatisfaction to factors related to their minority status (such as discrimination and lack of same-race peers, e.g., Pfeiffer & Schneider, 1974; Suen, 1983). Consequently, in addition to specific questions regarding social satisfaction, this form also contained direct questions as to the extent that subjects recommended the present campus environment to hypothetical students who differed only in terms of ethnicity. For example, subjects were presented with the question, "To what extent would you recommend the University of Arizona to black/Hispanic/white high school seniors who are interested in college?" Responses to this question were rated on a nine-point scale where 1 = "not at all" and 9 = "very much". These items were used not only as a measure of subjects' own satisfaction with the present university, but also as a measure of attribution of dissatisfaction associated with the university setting. It was expected that subjects who attributed negative events associated with campus (such as social dissatisfaction) to internal causes would be more likely to recommend the present university equally to others regardless of ethnicity. In contrast, it was expected that those who attributed negative events associated with campus to external causes (and especially to aspects of the campus or community environment such as racism) would be less likely to recommend the present university to prospective students whom they regard as similar to themselves, i.e., of the same ethnic background. To the extent that subjects were to make recommendations to hypothetical students, this measure was, in a loose sense of the word, a behavioral one. Additionally, information regarding the extent and quality of

interracial experiences was obtained on this measure for black and Hispanic subjects since these variables have been found to be related to both college satisfaction and feelings of alienation on campuses (Allen, 1982; Graham et al., 1985). An example of one such item is "How much prejudice/discrimination/racism have you experienced on the University of Arizona campus?" Responses were rated on a nine-point scale where 1 = "not at all" and 9 = "very much". Because of items regarding racism, and the need to appear consistent with the cover story (that recruiting brochures for black and Hispanic subjects would be developed from subjects' responses), this measure varied slightly for the different ethnic groups. For white subjects, items assessing perceived racism were eliminated. For all subjects, the order of recommendation items was different so that groups of subjects were presented with questions regarding their recommendation to hypothetical students of their own ethnicity first. Hence, resulting in three versions of the measure of college satisfaction.

#### Procedure

The experimenter in the current study was black. Subjects were run in separate groups for each ethnicity, with three to six subjects in each group. All subjects were told that the current study was concerned with the relationship between student characteristics and satisfaction with the present university environment. Furthermore, subjects were told that the results of the current study may be used in a university brochure to recruit new students. As such, their opinions regarding the type of student most likely to fit in with the present campus lifestyle would also be sought. Additionally, with black and Hispanic subjects, their minority status was recognized. These subjects were told that, in addition to a general recruiting brochure, the university was interested in recruiting more ethnic minority students and that a brochure especially for prospective black/Hispanic students was being developed, thus, accounting for the specific request for black/Hispanic subjects. After this introduction, experimental

packets were handed out. Subjects were told to complete forms in the sequence in which they appeared. Their anonymity was assured. Once all subjects had completed the experimental packet, the experimenter collected them and conducted a thorough debriefing.

## CHAPTER 3

### Results

The results of this study were analyzed in such a way as to assess differences among the three ethnic groups on six measures: loneliness, attributions for loneliness, general attribution style, self-esteem, overall psychological adjustment, and social satisfaction.

Two-way (ethnicity by loneliness) analyses of variance (ANOVAs) were employed to determine group differences on demographic variables, with the exception of Living Situation, which was assessed on a nominal scale of measurement and, therefore, inappropriate for ANOVAs. The three ethnic groups did not differ on any demographic variables assessed on an interval scale of measurement (see Table 1). Lonely subjects, however, did report significantly lower college grade point averages than their nonlonely counterparts [ $F(1, 77) = 5.44, p < .05$ ] and a trend toward lower high school grade point averages as well [ $F(1, 77) = 3.76, p < .06$ ]. There was no main effect of loneliness for the other demographic variables measured on an interval scale, nor were there any significant interaction effects for such demographic variables. To assess group differences between the nominal variable of Living Situation, a three-way, Living Situation by ethnicity by loneliness loglinear analysis was employed. This analysis was developed specifically to describe relationships between categorical variables (e.g., sex, ethnicity, living situation) and variables that are continuous, but grouped into intervals (i.e., loneliness). Results of this analysis showed that subjects living with their parents' did not differ from those living away from their parents in terms of either ethnicity or loneliness.

Table 1

Main Effects of Ethnicity and Loneliness for Demographic Variables Using Two-way, Ethnicity by Loneliness ANOVAs.

Dependent Variables	Ethnicity			F
	Means			
	Black	Hispanic	White	
Age	22.31	21.81	21.57	1.08
Years Attending Current University	2.12	2.22	1.80	1.28
Number of Units	14.50	13.13	14.10	.51
College Grade Point Average	2.93	2.86	2.85	.14
High School Grade Point Average	3.33	3.11	3.35	1.69
Parents' Yearly Income	41,000.13	38,705.98	39,895.78	1.59
Dependent Variables	Loneliness		F	
	Means			
	Lonely	Nonlonely		
Age	20.48	22.28	1.94	
Years Attending Current University	2.05	2.03	.01	
Number of Units	13.51	13.83	.57	
College Grade Point Average	2.73	3.03	5.41**	
High School Grade Point Average	3.15	3.37	3.76*	
Parents' Yearly Income	39,866.55	39,667.05	.23	

\*.10 > p > .05. \*\*p < .05.

A one-way ANOVA with ethnicity as the independent variable was employed to assess ethnic differences in loneliness. Findings failed to reveal a significant effect of ethnicity [ $F(2, 80) = 1.23, p = .30$ ]. Means and standard deviations are presented in Table 2, and are very similar to the norms for the Revised UCLA Loneliness Scale (Russell et al., 1980) presented by Russell et al. (1980), in which the mean was 36.56, and the standard deviation was 10.51. Thus, the hypotheses that ethnic minority subjects would score higher than whites on loneliness, and that blacks would score higher than Hispanic subjects, were not supported.

Given that the hypotheses of the current study involved lonely and nonlonely subjects of different ethnicities, it was necessary to obtain lonely and nonlonely groups. A median split was employed on the Revised UCLA Loneliness Scale scores (Russell et al., 1980) for the entire sample in order to obtain these groups. This method was used because of the small sample size. The Revised UCLA Loneliness Scale scores can range from 20 to 80. The median score for this sample was 36, as compared with the normative median of 34.78 reported by Russell et al. (1980). Norms for lonely and nonlonely groups are not available. Ten black, 16 Hispanic, and 16 white subjects scored 36 or below, making up the nonlonely group. The lonely group consisted of 16 black, 10 Hispanic, and 15 white subjects. A two-way (ethnicity by loneliness) ANOVA was conducted to determine if mean scores for loneliness for the lonely and nonlonely groups differed with respect to ethnicity. No significant ethnic group differences were found with respect to the lonely and nonlonely groups [ $F(2, 77) = .88, p > .40$ ]. Means and standard deviations are presented in Table 3.

Finally, to complete the description of the sample, a three-way, sex by ethnicity by loneliness loglinear analysis was used to determine whether male and female subjects differed from each other as a group with respect to ethnicity and loneliness. No

Table 2

Means and Standard Deviations of Revised UCLA Loneliness Scale Scores by Ethnicity

Ethnicity	<u>n</u>	Mean	Standard Deviation
Black	26	40.23	9.54
Hispanic	26	36.96	9.52
White	31	37.86	9.05

Table 3

Means and Standard Deviations of Revised UCLA Loneliness Scale Scores for Lonely and Nonlonely Black, Hispanic and White Subjects

Condition	Ethnicity		
	Black	Hispanic	White
<b>Lonely</b>			
<u>n</u>	16	10	15
Mean	45.69	46.50	43.67
Standard Deviation	7.86	7.99	7.34
<b>Nonlonely</b>			
<u>n</u>	10	16	16
Mean	31.50	31.00	30.00
Standard Deviation	3.50	3.77	4.15

significant differences were found. The results, therefore, suggest that subjects were well matched on demographic variables and loneliness.

#### Multivariate Analysis of Variance

A multivariate analysis of variance (MANOVA) using ethnicity and loneliness (one of the six measures) as independent variables was conducted on the 14 primary dependent variables which made up the five remaining measures of general attribution style, causal attributions for loneliness, psychological adjustment, self-esteem, and social satisfaction, plus social desirability. The variables which made up these measures are listed in Table 4.

#### Interaction Effects of the MANOVA

Two primary hypotheses were made. One was that lonely white subjects would score higher than lonely ethnic minority subjects on internality and stability for loneliness and for failure experiences in general. The other primary hypothesis was that lonely white subjects would score lower on self-esteem and psychological adjustment than lonely ethnic minority subjects. Results of the MANOVA failed to reveal a significant interaction between loneliness and ethnicity [ $F(28, 128) = .78, p > .60$ ]. Thus, the two primary hypotheses were not supported.

#### Main Effect of Ethnicity

A trend toward a main effect of ethnicity was revealed by the MANOVA, [ $F(28, 128) = 1.50, p < .06$ ]. Separate two-way (ethnicity by loneliness) ANOVAs were conducted on the 14 primary variables used in the MANOVA. These two-way ANOVAs were conducted due to masking effects of the MANOVA regarding shared or overlapping variance (Tabachnick & Fidell, 1983). These analyses were strictly exploratory, and run for research purposes specific to this dissertation. As seen in Table 5, significant F values were found for the following five primary variables: Global Symptom Index,

Table 4

Variables That Make Up the Dependent Measures

General Attribution Style	Attributions for Loneliness	Psychological Adjustment	Self Esteem	Social Satisfaction	Social Desirability
Composite Positive <sup>a</sup>	Internality <sup>b</sup>	GSI <sup>c</sup>	RSI <sup>d</sup>	measure of	MCSDS <sup>e</sup>
Composite Negative <sup>a</sup>	Internal-Stable <sup>b</sup>	PSDI <sup>c</sup>		College Sat-	
	Internal-Global <sup>b</sup>	PST <sup>c</sup>		isfaction	
	Externality <sup>b</sup>				
	External-Stable <sup>b</sup>				
	External-Global <sup>b</sup>				

<sup>a</sup>Composite scales of the Attribution Style Questionnaire (Peterson et al., 1982).

<sup>b</sup>Items from the measure of Attributions for Loneliness.

<sup>c</sup>Composite scales from the Symptom Checklist 90 - Revised (Derogatis, 1977). GSI = Global Symptom Index, PSDI = Positive Symptom Distress Index, PST = Positive Symptom Total.

<sup>d</sup>Rosenberg Self Esteem Inventory (Rosenberg, 1965).

<sup>e</sup>Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

Table 5

Main Effect of Ethnicity Using Two-Way, Ethnicity by Loneliness ANOVAs

Dependent Variables	Means			F
	Black	Hispanic	White	
Global Symptom Index	63.08	68.77	63.94	3.47*
Positive Symptom Distress Index	59.58	62.65	58.71	3.41*
Self-Esteem	35.50	31.50	32.94	7.68***
Social Satisfaction	4.72	6.43	6.35	3.22*
Composite Positive	17.79	16.34	16.54	4.21*
Internal-Positive	6.04	5.46	5.63	5.21**
Stable-Positive	5.92	5.41	5.71	3.27*
Global-Positive	5.82	5.45	5.21	3.34*
Composite Positive Minus Composite Negative	5.78	3.83	3.92	5.15**
Depression	61.30	68.98	64.34	6.19*

Note. Nonsignificant variables included: Positive Symptom Total, Internality, Internal-Stable, Internal-Global, Externality, External-Stable, External-Global, Composite Negative, and Social Desirability.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Positive Symptom Distress Index, Self-Esteem, Social Satisfaction and Composite Positive. Separate two-way (ethnicity by loneliness) ANOVAs were also conducted on five additional variables including the Internal-Positive, the Stable-Positive, the Global-Positive, and the Composite Positive Minus the Composite Negative subscales of the Attribution Style Questionnaire (Peterson et al., 1982), and on the Depression subscale of the Symptom Checklist 90 - Revised (Derogatis, 1977). The Internal-Positive, Stable-Positive, and the Global-Positive subscales were included to clarify which aspects of Composite Positive accounted most for the main effect of ethnicity found in the MANOVA. The Composite Positive Minus Composite Negative subscale was included to examine the relative difference in strength between Composite Positive and Composite Negative attribution styles among ethnic groups since attribution style was one of the major interests of this dissertation. Finally, the Depression subscale of the Symptom Checklist 90 - Revised was included due to the present interest in loneliness and the positive relationship between loneliness and depression (Bragg, 1979). Means, significant F values, and probabilities are also presented in Table 5.

Several hypotheses regarding a main effect of ethnicity were proposed. It was predicted that, overall, white subjects would score higher than ethnic minority subjects on internal attributions for negative outcomes, and that ethnic minority subjects would score higher on internal attributions for positive events than white subjects. It was also expected that ethnic minority subjects would score lower, overall, on psychological adjustment than majority subjects. Finally, it was hypothesized that white subjects would score higher on social satisfaction than ethnic minority subjects.

The hypothesis that white subjects would score higher than black and Hispanic subjects on internal attributions for negative outcomes was not supported, as ethnic groups did not differ significantly on Composite Negative using a two-way (ethnicity by loneliness) ANOVA [ $F(2, 77) = .84, p > .40$ ]. The hypothesis that black and Hispanic

subjects would score higher on internal attributions for positive outcomes was supported only for black subjects. A two-way (ethnicity by loneliness) ANOVA for scores from the Internal-Positive subscale of the Attribution Style Questionnaire (Peterson et al., 1982) showed that black subjects scored highest on this variable followed by white, and then Hispanic subjects [ $F(2, 77) = 5.21, p < .01$ ]. This finding suggests that black subjects attributed positive outcomes to internal causes most often, whereas, Hispanic subjects did so least often. Thus, the hypothesis that ethnic minority subjects would score higher on internal attributions for positive outcomes was only partially supported by the findings for black subjects. In fact, additional two-way (ethnicity by loneliness) ANOVAs showed that black subjects scored highest on Composite Positive, Stable-Positive, Global-Positive, and Composite Positive Minus Composite Negative [ $F(2, 77) = 4.21, p < .05, F(2, 77) = 3.27, p < .05, F(2, 77) = 7.03, p < .01, \text{ and } F(2, 77) = 5.15, p < .01$ , respectively]. In contrast, Hispanic subjects scored lowest on these measures, with the exception of Global-Positive, on which white subjects scored slightly lower than Hispanics.

To summarize, the results demonstrate that black and Hispanic subjects scored in opposite directions for attribution style for positive outcomes. Whereas black subjects attributed positive events to internal, stable, global causes most, Hispanic subjects attributed positive outcomes to such causes the least (with the exception of global causes). Results further demonstrate that, in comparison to negative outcomes, black subjects attributed positive outcomes to such factors (i.e., internal, stable, and global causes) the most, while, Hispanic subjects attributed positive outcomes to such factors the least.

Another secondary hypothesis was that black and Hispanic subjects would score lower on psychological adjustment than white subjects due to their susceptibility to more stressors. Again, results of two-way (ethnicity by loneliness) ANOVAs showed that this hypothesis was differentially supported by the two ethnic minority groups. Hispanic

subjects did, indeed, score consistently highest on variables of psychiatric symptoms of distress, while black subjects, overall, scored lowest on these variables. Table 5 shows that Hispanic subjects scored highest on Global Symptom Index, followed by white, and then black subjects [ $F(2, 77) = 3.47, p < .05$ ]. The same pattern was also found for Depression, in which Hispanic subjects scored highest, followed by white, then black subjects [ $F(2, 77) = 6.19, p < .05$ ]. While Hispanic subjects scored highest on Positive Symptom Distress Index, positions for black and white subjects were reversed, so that white subjects scored the lowest on this variable, [ $F(2, 77) = 3.41, p < .05$ ].

In summary, the hypothesis that ethnic minority subjects would score lower on psychological adjustment than white subjects was clearly supported by findings for the Hispanic group, who consistently scored highest on Global Symptom Index, Depression, and on Positive Symptom Distress Index. This hypothesis, however, was not supported by black subjects, for while they did score higher on Positive Symptom Distress Index than white subjects, they scored lower on Global Symptom Index, which is the single best measure of current level or depth of psychiatric distress on the Symptom Checklist 90 - Revised (Derogatis, 1977).

Finally, it was expected that white subjects would score highest on social satisfaction. A two-way (ethnicity by loneliness) ANOVA revealed a main effect of ethnicity for Social Satisfaction, so that Hispanic subjects scored highest, followed by white, and then black subjects. The significance of this finding, however, was apparently due to the particularly low scores for black subjects on Social Satisfaction, as the difference between mean white and Hispanic scores was marginal (See Table 5).

A main effect of ethnicity was also found for Self-Esteem. Black subjects scored highest on Self-Esteem, followed by white, and then Hispanic subjects [ $F(2, 77) = 7.68, p < .001$ ] as demonstrated by a two-way (ethnicity by loneliness) ANOVA.

To summarize the findings of the main effects of ethnicity, overall, black subjects scored highest on general adaptive attribution style, psychological adjustment, and on Self-Esteem, while Hispanic subjects scored lowest on these measures. In an apparent contradiction, Hispanic subjects scored highest on Social Satisfaction, whereas black subjects scored lowest. Hence, the hypotheses were differentially supported by the two ethnic minority groups, as these groups scored at opposite extremes on virtually every variable. Specifically, the hypothesis that white subjects would score higher than ethnic minority subjects on psychological adjustment was supported only by findings for Hispanic subjects, whereas the hypotheses that white subjects would score highest on Social Satisfaction, and lowest on internal attributions for positive events were supported only by findings for black subjects.

#### Main Effect of Loneliness

Results of the MANOVA showed an overall main effect of loneliness [ $F(14, 64) = 2.10, p < .03$ ]. Separate two-way (ethnicity by loneliness) ANOVAs were conducted on the 14 primary variables which yielded a significant main effect of loneliness, due to the masking effects of MANOVA discussed earlier. As seen in Table 6 statistically significant F values were found for Self-Esteem, Positive Symptom Distress Index, Social Satisfaction, Composite Negative, and Internal-Global. Lonely subjects scored lower than nonlonely subjects on both Self-Esteem, [ $F(1, 77) = 9.72, p < .01$ ] and on psychological adjustment, as indicated by significantly higher scores on Positive Symptom Distress Index [ $F(1, 77) = 7.93, p < .01$ ]. Lonely subjects also scored significantly lower on social satisfaction than nonlonely subjects [ $F(1, 77) = 4.90, p < .05$ ]. General attribution style was also affected by loneliness, so that lonely subjects scored higher on Composite Negative than nonlonely subjects [ $F(1, 77) = 17.84, p < .0001$ ]. Finally, lonely subjects ascribed loneliness to Internal-Global causes significantly more than their nonlonely counterparts [ $F(1, 77) = 6.25, p < .02$ ]. A trend toward Internal-Stable causal

Table 6

Main Effect of Loneliness Using Two-way, Ethnicity by Loneliness ANOVAs

Dependent Variables	Means		F
	Nonlonely	Lonely	
Composite Negative	11.53	13.19	17.84****
Internal-Global	3.29	4.61	6.25*
Positive Symptom Distress Index	58.33	62.68	7.63**
Self-Esteem	34.57	31.53	9.72**
Social Satisfaction	6.57	4.68	4.90*
Internal-Stable	6.42	7.00	3.69 $p < .06$
Internal-Negative	3.85	4.61	12.58***
Stable-Negative	3.78	4.14	3.96*
Global-Negative	3.90	4.44	7.03**
Composite Positive Minus Composite Negative	5.44	3.60	11.34**
Depression	62.51	67.23	7.40**

Note. Nonsignificant variables included: Composite Positive, Internality, Externality, External-Stable, External-Global, Global Symptom Index, Positive Symptom Total, and Social Desirability.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . \*\*\*\* $p < .0001$ .

attributions of loneliness was also demonstrated for lonely subjects [ $F(1, 77) = 3.69, p < .06$ ]. Hence, findings for lonely subjects supported those of the literature with respect to poorer psychological adjustment and self-esteem, and less adaptive attribution styles.

Separate two-way (ethnicity by loneliness) ANOVAs were also conducted on five additional variables, including the Depression subscale of the Symptom Checklist 90 - Revised (Derogatis, 1977), and on the Internal-Negative, Stable-Negative, Global-Negative, and the Composite Positive Minus Composite Negative subscales of the Attribution Style Questionnaire, (Peterson et al., 1982). In assessing the main effect of loneliness via two-way (ethnicity by loneliness) ANOVAs, the Depression subscale was also included as it was when assessing the main effect of ethnicity, because depression has been shown to be related to loneliness, a primary concern of the current study. The Internal-Negative, Stable-Negative, and the Global-Negative subscales of the Attribution Style Questionnaire were included to assess which dimensions of Composite Negative, i.e., internality, stability, and/or globality, accounted for the significance of the Composite Negative variable in the MANOVA. The Composite Positive Minus Composite Negative subscale of the Attribution Style Questionnaire was also included to examine the relative difference in strength between the Composite Positive and Composite Negative variables among lonely and nonlonely groups. Means, significant F values, and probabilities are presented in Table 6.

A number of hypotheses were generated regarding differences between lonely and nonlonely groups. It was hypothesized that lonely subjects would score higher on internal, stable attributions for both negative outcomes and for loneliness than nonlonely subjects, and that they would score lower than nonlonely subjects on psychological adjustment, Self-Esteem, and on Social Satisfaction.

The hypothesis that lonely subjects would score higher than nonlonely subjects on internal, stable attributions for negative outcomes was supported. A two-way (ethnicity

by loneliness) ANOVA showed that lonely subjects scored higher on Composite Negative than nonlonely subjects [ $F(1, 77) = 17.84, p < .01$ ]. Results also showed that lonely subjects scored higher than nonlonely subjects on Internal-Negative [ $F(1, 77) = 12.58, p < .001$ ], on Stable-Negative [ $F(1, 77) = 3.96, p < .05$ ], and on Global-Negative [ $F(1, 77) = 7.03, p < .01$ ]. Lonely subjects also scored lower on Composite Positive Minus Composite Negative [ $F(1, 77) = 11.34, p < .01$ ], suggesting that, in comparison to positive outcomes, lonely subjects ascribed negative outcomes to internal, stable, global factors more than nonlonely subjects. Hence, results support the hypothesis that lonely subjects would ascribe negative outcomes to internal, stable, and indeed, global causes more than nonlonely subjects. Similar causal attributions for loneliness specifically were also found, as lonely subjects scored higher on the Internal-Global measure of the attributions for loneliness measure [ $F(1, 77) = 6.25, p < .05$ ]. Of course, the latter must be interpreted with caution, as it is based on subjects' responses to a single item.

It was also hypothesized that lonely subjects would score lower on psychological adjustment as assessed by psychiatric symptoms. Results from the two-way (ethnicity by loneliness) ANOVA showed that lonely subjects differed significantly from nonlonely subjects in that the latter scored higher on Positive Symptom Distress Index [ $F(1, 77) = 7.63, p < .01$ ]. This finding suggests that when lonely subjects did endorse psychiatric symptoms of distress, they did so with significantly more intensity than nonlonely subjects. Consistent with the literature, lonely subjects also scored higher on Depression than nonlonely subjects (Bragg, 1979) [ $F(1, 77) = 7.40, p < .01$ ]. Hence, the hypothesis that lonely subjects would score lowest on psychological adjustment was supported with respect to more intense symptoms of psychiatric distress and higher depression scores.

Also consistent with the literature (e.g., Jones, 1982) and the current hypothesis, lonely subjects scored lower on Self-Esteem than nonlonely subjects, as demonstrated by a two-way (ethnicity by loneliness) ANOVA [ $F(1, 77) = 9.72, p < .01$ ].

Finally, as expected, a two-way (ethnicity by loneliness) ANOVA showed that lonely subjects scored lower on Social Satisfaction than nonlonely subjects,  $F(1, 77) = 18.16$ ,  $p < .001$ . This finding is also consistent with the literature (Cutrona, 1982; Cutrona & Peplau, 1979).

To summarize, findings of the main effect of loneliness confirmed those of the literature, and supported the hypotheses generated in this dissertation. That is, lonely subjects did, indeed, appear to be less well adjusted than nonlonely subjects in this study with respect to psychological adjustment, attribution style, self-esteem, and social satisfaction.

#### Additional Hypotheses and Findings

Two additional secondary hypotheses were presented earlier. One hypothesis was that among the ethnic minority groups, lonely subjects within each group would report less contact with the majority culture than their nonlonely counterparts. Within each ethnic minority group, a one-way, between-groups, lonely by nonlonely ANOVA was conducted on the variable Majority Contact. This was an item on the college satisfaction measure that assessed subjects' amount of contact with the majority culture. No significant differences were found between the lonely and nonlonely subgroups for either black subjects [ $F(1, 24) = 2.05$ ,  $p > .10$ ], or Hispanic subjects [ $F(1, 24) = 1.97$ ,  $p > .10$ ]. A two-way (ethnicity by loneliness) ANOVA was also conducted on this variable for black and Hispanic subjects to assess possible ethnic group differences due to the main effect of ethnicity found for psychological adjustment, general attribution style, self-esteem and social satisfaction. No main effect of ethnicity was found [ $F(1, 48) = 2.42$ ,  $p > .10$ ], so that black and Hispanic subjects did not differ with respect to the amount of contact with the majority culture. However, a two-way (ethnicity by loneliness) ANOVA did reveal a significant main effect of ethnicity for the variable Past Prejudice. This was a variable on the college satisfaction measure that assessed the amount of self-reported

prejudice experience prior to attendance at the present university. On this measure, black subjects scored significantly higher than Hispanic subjects [ $F(1, 48) = 4.37, p < .05$ ]. Hence, while the hypothesis that the lonely and nonlonely subgroups for black and Hispanic subjects would differ with respect to the amount of contact with the majority culture was not supported, and while black and Hispanic subjects did not differ with respect to the amount of prior contact with the majority culture, they did differ with respect to the nature of contact. That is, black subjects reported experiencing more past prejudice than Hispanic subjects. However, as revealed by a two-way (ethnicity by loneliness) ANOVA, black and Hispanic subjects did not differ significantly with respect to the amount of reported prejudice experienced at the present university, as assessed by the variable Current Prejudice (from the college satisfaction measure) [ $F(1, 48) = .93, p > .30$ ]. Means, F values, and probabilities for these variables are presented in Table 7.

Finally, it was expected that both internal causal attributions of failure and stable causal attributions of failure would be negatively related to psychological adjustment as assessed by Global Symptom Index, Positive Symptom Distress Index, and Positive Symptom Total, and negatively related to Self-Esteem. Table 8 shows that this hypothesis was supported overall, for both Internal-Negative and Stable-Negative were positively correlated with Global Symptom Index, Positive Symptom Distress Index, and with Positive Symptom Total, and negatively correlated with Self-Esteem.

#### Additional Analyses

The hypothesis that white subjects would score higher than ethnic minority subjects on internal, stable causal attributions for loneliness (as assessed by Internality and Internal-Stable) and for negative outcomes (as assessed by Composite Negative) was not supported, as no main effect of ethnicity was revealed by the two-way (ethnicity by loneliness) ANOVAs. Three additional variables were included on the college satisfaction measure to indirectly assess attribution style for negative events. Those variables were

Table 7

Two-Way, Ethnicity by Loneliness ANOVAs for Dependent Variables Specific to Ethnic Minority Groups

Dependent Variables	Means		F
	Black	Hispanic	
Majority Contact	4.20	3.00	1.21
Past Prejudice	4.74	3.32	4.37*
Current Prejudice	4.19	3.25	.93

\* $p < .05$ .

Table 8

Correlations Between Internal-Negative and Stable-Negative Attribution Styles and Psychological Adjustment and Self-Esteem

Dependent Variables	df	r	p
Internal-Negative			
Global Symptom Index	81	.22	< .05
Positive Symptom Distress Index	81	.31	< .01
Positive Symptom Total	81	.19	.10 > p > .05
Self-Esteem	81	-.44	< .001
Stable-Negative			
Global Symptom Index	81	.20	.10 > p > .05
Positive Symptom Distress Index	81	.34	< .01
Positive Symptom Total	81	.17	> .10
Self-Esteem	81	-.37	< .001

Black Recommendation, Hispanic Recommendation, and White Recommendation, in which subjects recommended the present university to hypothetical black, Hispanic, and white students, respectively. It was expected that subjects who attributed negative experiences to internal factors would be more likely to recommend the present university equally to those of the same and different ethnicity, whereas those who ascribed such experiences to external factors, i.e., the campus environment, would be less likely to recommend the present university to prospective students of the same background for reasons noted in the Methods Chapter. One-way, within subjects ANOVAs were conducted within each ethnic group to determine whether the three groups made differential recommendations to members of their group versus members of the other two groups. Means and standard deviations are presented in Table 9. The results showed that black subjects recommended the present university least to other blacks [ $F(2, 50) = 3.61, p < .05$ ] (mean Black Recommendation = 4.91, mean Hispanic Recommendation = 5.72, mean White Recommendation = 7.93). In contrast, neither white nor Hispanic subjects differed significantly with respect to the degree to which they recommended the present university to members of their own ethnic group and to members of the other ethnic groups [ $F(2, 60) = .37, p > .50$ , and  $F(2, 50) = 1.91, p > .10$ ].

Finally, correlation analyses within ethnicity were conducted to elucidate the nature (e.g., the direction) of the relationships between loneliness and the 14 primary variables, since the results of the MANOVA failed to reveal a significant overall interaction effect between ethnicity and loneliness. As seen in Table 10, all three ethnic groups scored in the same direction on every variable with the exception of Self-Esteem. Whereas loneliness was significantly and negatively related to Self-Esteem for both white ( $r = -.48$ ) and Hispanic subjects ( $r = -.77$ ), Self-Esteem was essentially unrelated to loneliness for black subjects ( $r = .03$ ). No other ethnic group differences were demonstrated in the nature of the relationships between loneliness and the remaining variables. For all

Table 9

Means and Standard Deviations of Recommendations as a Function of Ethnicity

Condition	Ethnicity		
	Black	Hispanic	White
<b>Black Recommendation</b>			
<u>n</u>	26	26	31
Mean	4.91	5.72	7.93
Standard Deviation	2.85	2.39	1.41
<b>Hispanic Recommendation</b>			
<u>n</u>	26	26	31
Mean	6.55	6.98	7.77
Standard Deviation	2.32	2.00	1.28
<b>White Recommendation</b>			
<u>n</u>	26	26	31
Mean	7.00	7.75	6.93
Standard Deviation	1.87	1.93	1.72

Table 10

Correlations Between Revised UCLA Loneliness Scale Scores and Dependent Variables as a Function of Ethnicity

Dependent Variables	Ethnicity					
	Black		Hispanic		White	
	df	r	df	r	df	r
Composite Negative	24	.40**	24	.38**	29	.53****
Composite Positive	24	-.13	24	-.02	29	-.11
Internality	24	.19	24	.25	29	.20
Internal-Global	24	.17	24	.21	29	.22
Internal-Stable	24	.20	24	.16	29	.21
Externality	24	-.07	24	-.09	29	-.11
External-Global	24	-.09	24	-.12	29	-.13
External-Stable	24	-.10	24	-.14	29	-.14
Global Symptom Index	24	.16	24	.47***	29	.36***
Positive Symptom Distress Index	24	.28	24	.55*****	29	.46***
Positive Symptom Index	24	.06	24	.31	29	.15
Self-Esteem	24	.03	24	-.77*****	29	-.48****
Social Satisfaction	24	-.21	24	-.17	29	-.25
Social Desirability	24	.10	24	.10	29	.12
Internal-Negative	24	.36*	24	.29	29	.39***
Stable-Negative	24	.21	24	.27	29	.31**
Global-Negative	24	.17	24	.19	31	.29
Composite Positive Minus Composite Negative	24	-.41**	24	-.34	29	-.40***

\* $p = .10$ . \*\* $.10 > p > .05$ . \*\*\* $p < .05$ . \*\*\*\* $p < .01$ . \*\*\*\*\* $p < .001$ .

subjects, as loneliness increased, the following was observed: increases on the Global Symptom Index, the Positive Symptom Distress Index, and on the Positive Symptom Total, suggesting poorer psychological adjustment; increases in Internal-Global attributions for loneliness and on the Composite Negative variable, and decreases on the Composite Positive variable, suggesting a less adaptive attribution style; decreases in Social Satisfaction. Because the current investigation was concerned with attribution style, and because the Composite Negative variable correlated significantly or nearly significantly with loneliness for all three groups, scores from the Internal-Negative, Stable-Negative, Global-Negative, and the Composite Positive Minus Composite Negative subscales of the Attribution Style Questionnaire (Peterson et al., 1982) were included in the analyses. These variables were included to determine which three aspects of the Composite Negative variable correlated significantly with loneliness, i.e., internality, stability, and/or globality, and to assess the relationship between loneliness and the relative relationship between Composite Positive and Composite Negative attribution styles. As seen in Table 9 all three aspects of Composite Negative correlated positively with loneliness, though the strongest relationships were between loneliness and Internal-Negative and Stable-Negative. Composite Positive Minus Composite Negative correlated negatively with loneliness, apparently due primarily to increases in Composite Negative with loneliness. It should be noted that while significant relationships between loneliness and some of these variables were found for both white and Hispanic subjects, findings for black subjects (who scored in the same direction) failed to yield any significant relationship between loneliness and these variables.

#### Summary of Results

To summarize the results, no significant interaction effect of ethnicity by loneliness was found using a MANOVA. Consistently, correlation analyses within ethnicity, between loneliness and dependent variables demonstrated that lonely subjects of all ethnic groups

scored in the expected direction for virtually all dependent variables. The one exception was Self-Esteem, which was negatively related to loneliness for white and Hispanic subjects, and unrelated to loneliness for black subjects. Furthermore, while statistically significant relationships were found for white and Hispanic subjects, no significant relationships were found for black subjects.

The most interesting finding for the main effect of ethnicity was that black and Hispanic subjects scored at opposite extremes on virtually every variable. Whereas black subjects scored highest overall on variables of psychological adjustment, adaptive attribution style, and self-esteem, Hispanic subjects scored lowest. In an apparent contradiction, Hispanic subjects scored highest on variables of social satisfaction, whereas, black subjects scored lowest. Consequently, hypotheses regarding main effects of ethnicity, in which the two ethnic minority groups were grouped together, were differentially supported by the two groups.

Finally, findings of a main effect of loneliness supported those of the literature. Lonely subjects were found to score lowest on variables of psychological adjustment, adaptive attribution style, self-esteem, and social satisfaction, as hypothesized.

## CHAPTER 4

### Discussion

#### A. Introduction

The purpose of the present investigation was to assess ethnic variability in previously reported correlates of loneliness, and to explore the role of attribution style in those differences. No significant differences were found in either the incidence or severity of loneliness for the three different groups. Results also failed to reveal any significant differences in demographics among the three ethnic groups. Hence, subjects were matched on both loneliness and demographic variables such as social economic status.

#### B. Main Hypotheses

Two primary hypotheses were generated for the present study. One was that lonely white subjects would score higher than lonely black and lonely Hispanic subjects on internal, stable attributions for loneliness and for negative events in general. The other primary hypothesis was that lonely black and lonely Hispanic subjects would score higher than lonely white subjects on psychological adjustment. These hypotheses were not supported. There are several possible explanations for the absence of interaction effects between ethnicity and loneliness on psychological adjustment and attribution style. First, it is possible that truly lonely individuals did not participate in the current study, as the sample was not random, but rather self-selected. Since lonely subjects have been found to avoid social contact (Paloutzian & Ellison, 1982; Russell et al., 1980), it is also possible that they would avoid experimental situations in which some social contact might be unavoidable. Another possible explanation for nonsignificant interaction effects is that any one of the measures employed in the current study may have failed to assess the intended construct, especially for ethnic minority subjects. While, the research on the measures employed demonstrates adequate reliability and validity, researchers have

failed to examine the ethnic group differences in psychometric properties of most measures. Given ethnic group differences in values, beliefs (e.g., Nobles & Goddard, 1984; Sue, 1981) and in symptomatology (e.g., Block, 1984), it is possible that instruments employed in the current study were not valid for ethnic minority subjects. Still another possibility is that there were no significant ethnic group differences in the experience of loneliness with respect to psychological adjustment and attribution style. Finally, it is possible that the sample sizes were too small to elucidate interaction effects. Any one, or none of these explanations may have attributed to the absence of interaction effects of ethnicity and loneliness on psychological adjustment and attribution style. These findings will need to be replicated before further speculation can be made about the nonsignificant interaction effects. Despite the fact that the main hypotheses were not confirmed, some interesting main effects of ethnicity and loneliness were found.

#### C. Main Effects of Ethnicity

The main effect of ethnicity was apparently due to the fact that black and Hispanic subjects scored at opposite extremes on virtually every measure with the exception of attributions for loneliness. This measure failed to yield any significant main effects of ethnicity, most likely due to its single-item measures of attribution style for loneliness, thus, rendering the measure particularly weak. Overall, black subjects scored highest on psychological adjustment, self-esteem, adaptive general attribution style (in the form of internal, stable, global attributions for positive events), and social dissatisfaction, followed by white, and then Hispanic subjects. The fact that black and Hispanic subjects scored at opposite extremes of the measures was perhaps the most interesting finding of the current investigation. A number of factors may have contributed to the findings including response bias, experimenter effects, cultural differences in the value or meaning of solitude, past experiences with racism, selection bias, and experimental factors.

Response bias is one possible explanation for the main effect of ethnicity for psychological adjustment. Generally, research indicates that black college students score lower on measures of psychological adjustment than their white peers (Graham et al., 1985). However, evidence does exist that suggests that different ethnic groups report psychological symptoms of distress differently (Skillbeck, Acosta, Yamamoto, & Evans, 1984). Specifically, this research demonstrates that black subjects under-report psychological symptoms of distress, whereas Hispanic subjects over-report such distress. In one study (Skillbeck et al., 1984), using the Symptom Checklist 90 - Revised, black subjects reported fewer symptoms of distress than white and Hispanic subjects, though therapist-judged diagnostic severity was significantly greater for black subjects, less for Hispanic subjects, and similar for whites with respect to subject-endorsed symptom severity. In a similar vein, throughout clinical and experimental literature, as well as sociological literature, blacks (in comparison to whites) have been described as being "tight mouthed", and reluctant to self-disclose (Grier & Cobbs, 1968; Jourard & Lasakow, 1958; Wolkon, Moriwaki, & Williams, 1973). Hence, black subjects may have scored higher on psychological adjustment because of a tendency to refrain from self-disclosure. However, this is counterindicated given black subjects' ethnic similarity with the current experimenter. Research of black subjects demonstrates that self-disclosure increases with experimenter ethnic similarity (Banks, 1972; Cantrill, 1944; Hyman, Cobb, Feldman, & Stember, 1954; Pettigrew, 1964).

Experimenter ethnicity effects provides a possible explanation for main effects of ethnicity regarding social satisfaction and loneliness. Since experimenter ethnic similarity has been found to be associated with disinhibited, less socially conforming responses (Atkinson, 1983; Sattler, 1970), the possibility that black subjects may have felt that they should profess discontent to a black experimenter must be considered (Sattler, 1970). It may be that black subjects exaggerated their sense of loneliness and social

dissatisfaction. If this was the case, then black subjects' superior scores on psychological adjustment, especially with respect to white subjects may be accounted for, given that black subjects suffered from less loneliness and social dissatisfaction than reported. This explanation is not likely, as the general absence of in-group members for black subjects both on campus and in the community suggests that they would indeed, suffer more from social dissatisfaction, if not loneliness, than their better represented Hispanic and white peers (e.g., Allport, 1954).

Cultural differences in the value of solitude may be another possible explanation for ethnic differences in psychological adjustment and attribution style. Murillo (1971) suggests that Hispanics differ from the majority culture in beliefs of the meaning of solitude given the sociocultural context in which they are embedded. The majority culture-bound values of individualism, self-determinism and self-fulfillment (Falcov, 1982) are likely to lend some degree of positive value to solitude for majority subjects. In contrast, the values of interdependence and cooperation stressed and sought after in the Hispanic nuclear family are not likely to contribute to the value or positive meaning of solitude (Murillo, 1971; Rubel, 1970). In fact, a number of researchers propose that the Hispanic nuclear family provides its members with their primary source of esteem and belonging (Mirande & Enriquez, 1980; Murillo, 1971; Wilkinson, 1982). While familial interdependence is also a key concept in black culture (Nobles & Goddard, 1984), majority values of individualism are also likely to be emphasized to a greater degree in black culture than in Hispanic culture given blacks' closer contact with the majority culture (e.g., blacks are more likely than Hispanics to be native born and to speak English, Jackson, 1981). It is, therefore, likely that of the three groups, solitude has more negative connotations for Hispanic subjects. Because of the role of the Hispanic nuclear family in self-concept and self-esteem, separation from that entity—as is frequently the case among college students—was likely to have more serious and negative effects on

adjustment for Hispanic subjects than for either white or black subjects. The concept of familial interdependence may also be a factor in Hispanic subjects scoring lowest on internal, stable, global attributions for positive events. Since Hispanic subjects are more likely to see themselves as a part of a whole from which they derive esteem (Murillo, 1971), they may also be more likely than white or black subjects to attribute causes for positive events in their lives to aspects outside of themselves. Hence, possible cultural differences in the value of interdependence were likely to affect psychological adjustment associated with solitude, as well as one's perceptions of the causes of events in their lives.

While this explanation is consistent with Hispanic subjects' low scores on psychological adjustment and adaptive attribution style, it is not consistent with their relatively high degree of social satisfaction or low scores on loneliness. If Hispanic subjects were more dependent on their families for esteem and sense of belonging than black and white subjects, then they would also be expected to score higher on loneliness and lower on social satisfaction than the other two groups. Since the latter was not found, the explanation of Hispanic subjects being more dependent upon their families than black and white subjects is counterindicated.

Black subjects' greater experience with racism may be another possible explanation for their higher scores on psychological adjustment and general adaptive attribution style, particularly with respect to Hispanic subjects. While black and Hispanic subjects did not differ on the amount of racism experienced on campus, black subjects did report more past experience with racism. This experience may have afforded black subjects a greater opportunity to learn how to cope with such obstacles, resulting in a greater sense of mastery over such common difficulties as racism. Such a sense of mastery is likely to have facilitated an adaptive attribution style, and minimized the deleterious effects of racism (Allport, 1954; Grier & Cobbs, 1968), thereby promoting psychological adjustment.

Research demonstrates that there is a positive relationship between college adaptation (e.g., emotional adjustment, academic performance, and institutional attachment) and previous interracial experiences among black students at predominantly white colleges/universities (Graham et al., 1985).

A selection bias may also have attributed to ethnic group differences in psychological adjustment, attribution style, and social satisfaction. It may be that black subjects, who choose to attend a predominantly white university in a community in which blacks were also poorly represented were more independent and self-confident than white and Hispanic subjects who were either represented on campus, in the community, or both. Furthermore, by successfully remaining in such a situation of ethnic isolation, black subjects' sense of mastery was likely to have been facilitated given their inability to rely on support provided by the presence of a significant in-group (e.g., Allport, 1954). Hence, though social satisfaction was likely to have been negatively affected by isolation, success in such a setting was likely to have positively affected psychological adjustment, self-esteem, and causal attributions for success. This explanation is particularly attractive, as it accounts for all of the main effects of ethnicity found.

The fact that subjects were matched on loneliness and demographic variables such as social economic status may also have attributed to the present findings. Research demonstrates that when black and white subjects are matched on demographic variables (e.g., age, education, social economic status), black subjects may score higher on psychological adjustment (Comstock & Helsing, 1972; Warheit, Holzer, & Arey, 1975) and self-esteem (Harris & Stokes, 1978; Simmons et al., 1978). Black subjects' higher scores on measures of psychological adjustment and self-esteem may, therefore, be due to the fact that subjects were matched on important demographic variables. While this explanation may account for black subjects' good psychological adjustment, it neither explains the apparent discrepancy between their adjustment and social dissatisfaction, nor

why black subjects would score higher on such measures when matched on demographic variables.

The location of the current study may also have affected, to some degree, the extreme adjustment differences between Hispanic and black subjects. The present study took place in the southwestern United States where Hispanics, not blacks, are the identified minority group. As such, Hispanic subjects may have suffered from more salient forms of racism than black subjects. Poorer psychological adjustment and less sense of control over positive outcomes may be consequences of the stigma associated with racism (Allport, 1954; Grier & Cobbs, 1968). However, this is not a likely explanation for differences between black and Hispanic subjects in the current study since the groups did not differ on the amount of current prejudice/racism reported, and since Hispanics reported more social satisfaction.

To conclude, the main effects of ethnicity for psychological adjustment, attribution style, and social satisfaction do not appear to be due to differences in loneliness or important demographic variables. A number of possible explanations for the main effect of ethnicity were offered. However, the combination of selection bias and black subjects' greater mastery (in comparison with Hispanic subjects) in coping with racism is perhaps the most powerful explanation for the present findings, for together, they can account not only for black subjects' overall higher scores on psychological adjustment, adaptive attribution style, self-esteem, and social dissatisfaction, but also for the extreme differences in scores between Hispanic and black subjects. The main effect of ethnicity may be, nevertheless, due to any one, a combination of, or none of the possibilities presented here. Research replicating the current findings is necessary for further speculation.

#### D. Main Effects of Loneliness

A main effect of loneliness was found which replicated previous findings in the literature. Lonely subjects scored lower on psychological adjustment, self-esteem, adaptive attribution style (in the form of internal, stable, global attributions for negative events, and internal, global attributions for loneliness) and lower on social satisfaction.

The remarkable finding regarding the main effect of loneliness was that the lonely ethnic minority subjects scored in the same direction as lonely white subjects on every measure with the exception of self-esteem. While loneliness was negatively related to self-esteem for both white and Hispanic subjects, self-esteem was unrelated to loneliness for black subjects. This finding was inconsistent with the literature in which low self-esteem has been found to be one of the most consistent correlates of loneliness (Jones, 1982; Moore & Sermat, 1974; Wood, 1978). Several possible explanations could account for this finding, including the nonsignificant nature of the relationships between loneliness and the dependent variables for black subjects, self-selection, mastery in coping with racism, and response bias.

On every dependent variable except self-esteem, loneliness correlated in the expected direction for black subjects. However, for black subjects, correlations were weak, none being statistically significant. It may be, therefore, that loneliness had less of an impact on psychological adjustment and attribution style for black subjects than for white and Hispanic subjects, given the assumption that it was loneliness that caused such maladaptation (i.e., lower scores on psychological adjustment, adaptive attribution style), and not the converse, or some third variable. If, however, some third variable did account for the relationship between loneliness and the dependent measures of this study, it is likely that that variable was too weak to impact on self-esteem for black subjects, given the weak relationship between loneliness and the dependent measures for that group.

Self-selection may also account for the lack of relationship between loneliness and self esteem for black subjects, as well as the nonsignificant relationships between loneliness and both psychological adjustment and attribution style. The possibility of a self-selection bias was discussed earlier, where it was proposed that the success of black subjects in the present environment, which was virtually devoid of in-group support, was dependent upon strong internal mechanisms such as solid self-esteem, autonomy, and good coping mechanisms. If black subjects were, indeed, self-selected for higher adjustment in comparison to Hispanic and white subjects, then they would be less likely to suffer from adjustment difficulties associated with various negative circumstances, such as loneliness. Furthermore, if self-esteem mediated loneliness, as opposed to the converse, or some third variable, then subjects self-selected for higher self-esteem would be likely to suffer from fewer deleterious effects associated with loneliness. This explanation would, therefore, account for the weak relationship between loneliness and both psychological adjustment and adaptive attribution style among black subjects.

Experience with racism is another possible explanation for the absence of the relationship between loneliness and low self-esteem for black subjects. Black subjects reported more experience with racism than Hispanic subjects which suggests more past exposure to outgroup membership status, loneliness, and denigration, in comparison to Hispanic and white subjects. Such experiences for successful individuals, such as (ethnic minority) college students, may actually have served to fortify self-esteem, thereby rendering self-esteem less vulnerable to negative events for black subjects in comparison to white and Hispanic subjects.

Another possibility for the absence of relationship between self-esteem and loneliness for black subjects is a response bias. Black subjects simply may have responded to self-esteem items less candidly than other subjects given their reluctance to self-disclose (Kadushin, 1969; Wolkon et al., 1973). However, if this was the case, then

one would also expect to find no relationship between loneliness and psychological adjustment yet, black subjects did score in the expected direction on measures of psychological adjustment.

In conclusion, the negative emotions and cognitions related to the loneliness were minimal for black subjects with the exception of self-esteem which was not found to be related to loneliness. Several explanations were generated for this finding, however, the selection bias seems to be the most viable as it accounts for the overall weak relationships between loneliness and dependent measures, as well as the lack of relationship between loneliness and self-esteem. The fact that the selection bias explanation can also account for the main effects of ethnicity further supports the likelihood that a similar bias was operating in ethnic differences in the strength of the relationships between loneliness and the dependent measures.

#### E. General Discussion

Overall, in the current study, ethnic differences in loneliness were not found. For all three ethnic groups, loneliness correlated with psychological adjustment and attribution style in the expected direction, with the exception of self-esteem, which was not found to be related to loneliness for black subjects. Hence, findings suggest that similar interventions for black, Hispanic, and white subjects presenting with problems of loneliness in this study may be appropriate, though black subjects may require less intensive treatment given the weak relationship between loneliness and maladaptation.

One focus of treatment for lonely subjects in the current study might be to diminish the frequency and intensity of attributing failure experiences to personal incompetence (Dweck & Goetz, 1978; Storms & McCaul, 1976). Though skills deficits and interpersonal anxiety are frequently factors in loneliness which need to be assessed and corrected (e.g., Jones, Hobbs, & Hockenbury, 1982) recent literature suggests that such difficulties (i.e., motivational and performance deficiencies) may result from self-

blaming/self-defeating attributions (Anderson, 1983; Wilbert & Rupert, 1986; Young, 1982). That is, dysfunctional attributions frequently accompany, maintain, or exacerbate negative social behavior (Weiner, 1974, 1979) which, in turn is likely to perpetuate emotional isolation. As such, a possible treatment approach is a cognitive-oriented intervention with foci on reattribution training and aspects of problem solving that can be changed and controlled (Anderson, 1983; Wilbert & Rupert, 1986; Young, 1982). This would include, in addition to necessary skills development (e.g., assertiveness training, relaxation training, desensitization to failure experiences), clarification, evaluation and revision of typical beliefs and automatic thoughts that lonely individuals tend to employ in understanding their world (Young, 1982), specifically, reinterpretation of failure in terms of strategy and effort rather than ability and trait (Anderson, 1983). Many current therapies such as Beck's Cognitive Therapy (1967b) already incorporate similar notions. Of course, not all people who tend to make character-type attributions are lonely or depressed. However, research shows a relationship between self-blaming attribution styles and unpleasant/maladaptive emotions (e.g., Reimer, 1975) cognitions (e.g., McMahan, 1973) and behaviors (e.g., Weiner, 1974) including loneliness (Anderson, 1978, 1983; Anderson & Arnoult, 1985; Anderson et al., 1983). The implication is that those who use character-type attribution styles to explain (interpersonal) failures are more likely to suffer from serious loneliness at some time in their lives (Anderson, 1983). Because we all experience interpersonal losses and failures, teaching people to make more behavioral attributions (e.g., attributions regarding effort, for example, as opposed to those pertaining to innate deficits) might be useful in minimizing bouts of loneliness (or depression, Anderson, 1983).

In contrast, had one group failed to show tendencies toward internal attributions for loneliness and failure, the focus of treatment might then, more appropriately be environmental adaptation. One strategy would be to broaden the lonely individual's circle

of friends by increasing social involvement (Lawson, 1983; Rook & Peplau, 1982). This might include joining community organizations (e.g., political and civic organizations, religious groups) as well as campus groups (cultural clubs, sororities, fraternities). Development of substitute solitary activity skills to reduce the discomfort of being alone is also recommended for individuals whose loneliness is realistically experienced as a byproduct of external factors (Rook & Peplau, 1982).

Findings of the current study on lonely black and lonely Hispanic (and lonely white) subjects generally support previous loneliness literature based predominantly on research of majority subjects. However, such similarity in patterns across ethnic groups may not be true of other areas of psychology. The fact that significant differences were found in the psychological adjustment, self-esteem and attribution style among the three ethnic groups suggests that ethnic group differences in other areas of psychology may indeed exist. These findings may, therefore, raise the question of the applicability of psychology in general to ethnic minority groups given that psychology is a field largely based on research of white subjects. These findings certainly indicate the need for further research of ethnic differences in psychosocial behavior patterns, such as response biases, which are likely to affect the accuracy of interpretations of self-report measures (e.g., Nobles & Goddard, 1984).

To conclude, the purpose of the current investigation was to investigate ethnic group differences in loneliness with respect to psychological adjustment and attribution style. None were found. However, significant ethnic group differences were found which call to question the practice of generalizing theories and therapies developed from research on one ethnic group to other ethnic groups. Such insensitive generalization may be one factor in the reported lack of success of traditional psychological intervention with ethnic minority groups (e.g., Block, 1984). In order to understand and, in turn, effectively meet the service needs of ethnic minority persons, psychologists will need to

shift and/or expand the focus of research. Significant psychological research exists on theory and intervention as they pertain to the majority culture. This research has both heuristic and pragmatic value with respect to groups assessed. Yet, it is not at all clear what it contributes toward improving the understanding and effectiveness of psychology as it applies to ethnic minority persons. Generally speaking, the facilitation of knowledge regarding ethnic minority groups will necessitate that researchers study sociopolitical factors (e.g., racism, stereotyping) that are likely to affect the psychosocial development of ethnic minorities, direct attention to understanding cultural factors such as family dynamics (e.g., family roles and socialization factors), and examine both the differential incidence of mental health problems and differences in reporting styles, all within the context of respect for heterogeneity within groups (Casas, 1985).



## APPENDIX B

Directions: Indicate how often you feel the way described in each of the following statements. Circle one number for each.

Statement	Never	Rarely	Sometimes	Often
1. I feel in tune with the people around me	1	2	3	4
2. I lack companionship	1	2	3	4
3. There is no one I can turn to	1	2	3	4
4. I do not feel alone	1	2	3	4
5. I feel part of a group of friends	1	2	3	4
6. I have a lot in common with the people around me	1	2	3	4
7. I am no longer close to anyone	1	2	3	4
8. My interests and ideas are not shared by those around me	1	2	3	4
9. I am an outgoing person	1	2	3	4
10. There are people I feel close to	1	2	3	4
11. I feel left out	1	2	3	4
12. My social relationships are superficial	1	2	3	4
13. No one really knows me well	1	2	3	4
14. I feel isolated from others	1	2	3	4
15. I can find companionship when I want it	1	2	3	4
16. There are people who really understand me	1	2	3	4
17. I am unhappy being so withdrawn	1	2	3	4
18. People are around me but not with me	1	2	3	4
19. There are people I can talk to	1	2	3	4
20. There are people I can turn to	1	2	3	4

## APPENDIX C

Instructions: Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is TRUE or FALSE as it pertains to you personally. If it is true, circle the letter T and if it is false, circle the letter F.

- T F 1. Before voting I thoroughly investigate the qualifications of all the candidates.
- T F 2. I never hesitate to go out of my way to help someone in trouble.
- T F 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 4. I have never intensely disliked anyone.
- T F 5. On occasion I have had doubts about my ability to succeed in life.
- T F 6. I sometimes feel resentment when I don't get my way.
- T F 7. I am always careful about my manner of dress.
- T F 8. My table manners at home are as good as when I eat out at a restaurant.
- T F 9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
- T F 10. On a few occasions, I have given up doing something because I felt too little of my ability.
- T F 11. I like to gossip at times.
- T F 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- T F 13. No matter who I'm talking to, I'm always a good listener.
- T F 14. I can remember "playing sick" to get out of something.
- T F 15. There have been occasions when I took advantage of someone.

- T F 16. I'm always willing to admit it when I make a mistake.
- T F 17. I always try to practice what I preach.
- T F 18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
- T F 19. I sometimes try to get even rather than forgive and forget.
- T F 20. When I don't know something I don't at all mind admitting it.
- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to return a favor.
- T F 26. I have never been irked when people expressed ideas very different from my own.
- T F 27. I never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.
- T F 30. I am sometimes irritated by people who ask favors of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.

## APPENDIX D

- 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 this cause in the blank provided.
  4. Answer three questions about the cause.
  5. Go on to the next situation.

**YOU MEET A FRIEND WHO COMPLIMENTS YOU ON YOUR APPEARANCE.**

1. Write down the one major cause. \_\_\_\_\_
2. Is the cause of your friend's complement due to something about you or something about the other people or circumstances.

Totally due to other	1	2	3	4	5	6	7	Totally due
people or circumstances								to me

3. In the future when you are with your friend, will the cause again be present?

Will never	1	2	3	4	5	6	7	Will always
again be present								be present

4. Is the cause something that just affects interacting with friends or does it also influence other areas of your life?

Influences just	1	2	3	4	5	6	7	Influences
this particular								all situations
situation								in my life

**YOU HAVE BEEN LOOKING FOR A JOB UNSUCCESSFULLY FOR SOME TIME.**

5. Write down the one major cause. \_\_\_\_\_

6. Is the cause of your unsuccessful job search due to something about you or something about other people or circumstances?

Totally due								Totally due
to other people	1	2	3	4	5	6	7	to me
or circumstances								

7. In the future when looking for a job, will this cause again be present?

Will never	1	2	3	4	5	6	7	Will always
again be present								be present

8. Is the cause something that just influences looking for a job or does it also influence other areas of your life?

Influences just								Influences
this particular	1	2	3	4	5	6	7	all situations
situation								in my life

**YOU BECOME VERY RICH.**

9. Write down the one major cause. \_\_\_\_\_

10. Is the cause of your becoming rich due to something about you or something about other people or circumstances?

Totally due								Totally due
to other people	1	2	3	4	5	6	7	to me
or circumstances								

11. In your financial future, will this cause again be present?

Will never								Will always
again be present	1	2	3	4	5	6	7	be present

12. Is the cause something that just affects obtaining money or does it also influence other areas of your life?

Influences just									Influences
this particular	1	2	3	4	5	6	7	all situations	
situation								in my life	

A FRIEND COMES TO YOU WITH A PROBLEM AND YOU DON'T TRY TO HELP THEM.

13. Write down the one major cause. \_\_\_\_\_

14. Is the cause of your not helping your friend due to something about you or something about other people or circumstances?

Totally due									Totally due
to other people	1	2	3	4	5	6	7	to me	
or circumstances									

15. In the future when a friend comes to you with a problem, will this cause again be present?

Will never	1	2	3	4	5	6	7	Will always
again be present								be present

16. Is the cause something that just affects what happens when a friend comes to you with a problem, or does it also influence other areas of your life?

Influences just									Influences
this particular	1	2	3	4	5	6	7	all situations	
situation								in my life	

YOU GIVE AN IMPORTANT TALK IN FRONT OF A GROUP AND THE AUDIENCE REACTS NEGATIVELY.

17. Write down the one major cause. \_\_\_\_\_



24. Is the cause something that just affects doing projects or does it also influence other areas in your life?

Influences just								Influences
this particular	1	2	3	4	5	6	7	all situations
situation								in my life

YOU MEET A FRIEND WHO ACTS HOSTILELY TOWARDS YOU.

25. Write down the one major cause. \_\_\_\_\_

26. Is the cause of your friend acting hostile due to something about you or something about other people or circumstances?

Totally due								Totally due
to other people	1	2	3	4	5	6	7	to me
or circumstances								

27. In the future when interacting with friends, will this cause again be present?

Will never	1	2	3	4	5	6	7	Will always
again be present								be present

28. Is the cause something that just influences interacting with friends or does it also influence other areas of your life?

Influences just								Influences
this particular	1	2	3	4	5	6	7	all situations
situation								in my life

YOU CAN'T GET ALL THE WORK DONE THAT OTHERS EXPECT OF YOU.

29. Write down the one major cause. \_\_\_\_\_



36. Is this cause something that just affects how your spouse (boyfriend/girlfriend) treats you or does it also influence other areas of your life?

Influences just									Influences
this particular	1	2	3	4	5	6	7		all situations
situation									in my life

YOU APPLY FOR A POSITION THAT YOU WANT VERY BADLY (e.g., IMPORTANT JOB, GRADUATE SCHOOL ADMISSION, ETC.) AND YOU GET IT.

37. Write down the one major cause. \_\_\_\_\_

38. Is the cause of your getting the position due to something about you or something about other people or circumstances?

Totally due									Totally due
to other people	1	2	3	4	5	6	7		to me
or circumstances									

39. In the future when applying for a position, will this cause again be present?

Will never	1	2	3	4	5	6	7	Will always
again be present								be present

40. Is the cause something that just influences applying for a position or does it also influence other areas of your life?

Influences just								Influences
this particular	1	2	3	4	5	6	7	all situations
situation								in my life

YOU GO OUT ON A DATE AND IT GOES BADLY.

41. Write down the one major cause. \_\_\_\_\_



48. Is this cause something that just affects getting a raise or does it also influence other areas of your life?

Influences just

this particular

situation

1

2

3

4

5

6

7

Influences

all situations

in my life

## APPENDIX E

Directions: Circle the number from 1 to 9 that best describes the extent to which you agree with the following statements, where:

1 = not at all

5 = somewhat

9 = very much

1. When I am lonely it is due to something about myself.

1    2    3    4    5    6    7    8    9

not at all

very much

2. I feel lonely in many different situations because of something about myself.

1    2    3    4    5    6    7    8    9

not at all

very much

3. I can change the factors about myself that cause me to feel lonely.

1    2    3    4    5    6    7    8    9

not at all

very much

4. When I am lonely, it is due to external factors (such as other people or the campus environment).

1    2    3    4    5    6    7    8    9

not at all

very much

5. I feel lonely in many different situations because of external factors (such as other people or the campus environment).

1    2    3    4    5    6    7    8    9

not at all

very much

6. I can change external factors that cause me to feel lonely.

1    2    3    4    5    6    7    8    9

not at all

very much

**APPENDIX F**  
**INSTRUCTIONS**

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and circle the number that best describes HOW MUCH DISCOMFORT THAT PROBLEM HAS CAUSED YOU DURING THE PAST SIX (6) MONTHS, INCLUDING TODAY. Do not skip any items.

	not at all		extremely		
1. Headaches	1	2	3	4	5
2. Nervousness or shaking inside	1	2	3	4	5
3. Repeated unpleasant thoughts that won't leave your mind	1	2	3	4	5
4. Faintness or dizziness	1	2	3	4	5
5. Loss of sexual interest or pleasure	1	2	3	4	5
6. Feeling critical of others	1	2	3	4	5
7. The idea that someone else can control your thoughts	1	2	3	4	5
8. Feeling others are to blame for most of your troubles	1	2	3	4	5
9. Trouble remembering things	1	2	3	4	5
10. Worried about sloppiness or carelessness	1	2	3	4	5
11. Feeling easily annoyed or irritated	1	2	3	4	5
12. Pains in heart or chest	1	2	3	4	5
13. Feeling afraid in open spaces or on the streets	1	2	3	4	5
14. Feeling low in energy or slowed down	1	2	3	4	5
15. Thoughts of ending your life	1	2	3	4	5
16. Hearing voices that other people do not hear	1	2	3	4	5
17. Trembling	1	2	3	4	5
18. Feeling that most people cannot be trusted	1	2	3	4	5

19. Poor appetite	1	2	3	4	5
20. Crying easily	1	2	3	4	5
21. Feeling shy or uneasy with the opposite sex	1	2	3	4	5
22. Feelings of being trapped or caught	1	2	3	4	5
23. Suddenly scared for no reason	1	2	3	4	5
24. Temper outbursts that you could not control	1	2	3	4	5
25. Feeling afraid to go out of your house alone	1	2	3	4	5
26. Blaming yourself for things	1	2	3	4	5
27. Pains in lower back	1	2	3	4	5
28. Feeling blocked in getting things done	1	2	3	4	5
29. Feeling lonely	1	2	3	4	5
30. Feeling blue	1	2	3	4	5
31. Worrying too much about things	1	2	3	4	5
32. Feeling no interest in things	1	2	3	4	5
33. Feeling fearful	1	2	3	4	5
34. Your feelings being easily hurt	1	2	3	4	5
35. Other people being aware of your private thoughts	1	2	3	4	5
36. Feeling others do not understand you or are unsympathetic	1	2	3	4	5
37. Feeling that people are unfriendly or dislike you	1	2	3	4	5
38. Having to do things very slowly to insure correctness	1	2	3	4	5
39. Heart pounding or racing	1	2	3	4	5
40. Nausea or upset stomach	1	2	3	4	5
41. Feeling inferior to others	1	2	3	4	5
42. Soreness of your muscles	1	2	3	4	5
43. Feeling that you are watched or talked about by others	1	2	3	4	5

44. Trouble falling asleep	1	2	3	4	5
45. Having to check and doublecheck what you do	1	2	3	4	5
46. Difficulty making decisions	1	2	3	4	5
47. Feeling afraid to travel on buses, subways, or trains	1	2	3	4	5
48. Trouble getting your breath	1	2	3	4	5
49. Hot or cold spells	1	2	3	4	5
50. Having to avoid certain things, places, or activities because they frighten you	1	2	3	4	5
51. Your mind going blank	1	2	3	4	5
52. Numbness or tingling in parts of your body	1	2	3	4	5
53. A lump in your throat	1	2	3	4	5
54. Feeling hopeless about the future	1	2	3	4	5
55. Trouble concentrating	1	2	3	4	5
56. Feeling weak in parts of your body	1	2	3	4	5
57. Feeling tense or keyed up	1	2	3	4	5
58. Heavy feelings in your arms or legs	1	2	3	4	5
59. Thoughts of death or dying	1	2	3	4	5
60. Overeating	1	2	3	4	5
61. Feeling uneasy when people are watching or talking about you	1	2	3	4	5
62. Having thoughts that are not your own	1	2	3	4	5
63. Having urges to beat, injure, or harm someone	1	2	3	4	5
64. Awakening in the early morning	1	2	3	4	5
65. Having to repeat the same actions, such as touching, counting, washing	1	2	3	4	5
66. Sleep that is restless or disturbed	1	2	3	4	5

67. Having urges to break or smash things	1	2	3	4	5
68. Having ideas or beliefs that others do not share	1	2	3	4	5
69. Feeling very self-conscious with others	1	2	3	4	5
70. Feeling uneasy in crowds, such as shopping or at a movie	1	2	3	4	5
71. Feeling everything is an effort	1	2	3	4	5
72. Spells of terror or panic	1	2	3	4	5
73. Feeling uncomfortable about eating or drinking in public	1	2	3	4	5
74. Getting into frequent arguments	1	2	3	4	5
75. Feeling nervous when you are left alone	1	2	3	4	5
76. Others not giving you proper credit for your achievements	1	2	3	4	5
77. Feeling lonely even when you are with people	1	2	3	4	5
78. Feeling so restless you couldn't sit still	1	2	3	4	5
79. Feelings of worthlessness	1	2	3	4	5
80. The feeling that something bad is going to happen to you	1	2	3	4	5
81. Shouting or throwing things	1	2	3	4	5
82. Feeling afraid you will faint in public	1	2	3	4	5
83. Feeling that people will take advantage of you if you let them	1	2	3	4	5
84. Having thoughts about sex that bother you a lot	1	2	3	4	5
85. The idea that you should be punished for your sins	1	2	3	4	5
86. Thoughts and images of a frightening nature	1	2	3	4	5

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 87. The idea that something serious is wrong with your body | 1 | 2 | 3 | 4 | 5 |
| 88. Never feeling close to another person                   | 1 | 2 | 3 | 4 | 5 |
| 89. Feelings of guilt                                       | 1 | 2 | 3 | 4 | 5 |
| 90. The idea that something is wrong with your mind         | 1 | 2 | 3 | 4 | 5 |

## APPENDIX G

For each of the following statements, please indicate your level of agreement by circling either SA (strongly agree), A (agree), D (disagree) or SD (strongly disagree). Your responses on this questionnaire are strictly anonymous.

- |  |    |   |   |    |
|--|----|---|---|----|
| 1. On the whole, I am satisfied with myself.                                     | SA | A | D | SD |
| 2. At times I think I am no good at all.   | SA | A | D | SD |
| 3. I feel that I have a number of good qualities.                                | SA | A | D | SD |
| 4. I am able to do things as well as most other people.                          | SA | A | D | SD |
| 5. I feel I do not have much to be proud of.                                     | SA | A | D | SD |
| 6. I certainly feel useless at times.  | SA | A | D | SD |
| 7. I feel that I'm a person of worth, at least on an<br>equal plane with others. | SA | A | D | SD |
| 8. I wish I could have more respect for myself.                                  | SA | A | D | SD |
| 9. All in all, I am inclined to feel that I am a failure                         | SA | A | D | SD |
| 10. I take a positive attitude toward myself.                                    | SA | A | D | SD |

Please continue on the next page.

APPENDIX H—Hispanic Version  
COLLEGE SATISFACTION FORM

Directions: As you were told earlier, the University is currently developing a college guide for Hispanic students considering attending the University of Arizona. The purpose of the brochure is to give high school seniors information about U of A students and the campus environment. Please respond to the following items as honestly as possible.

1. What do you like the most about being a student at the University of Arizona?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  
2. What do you dislike the most about being a student at the University of Arizona?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  
3. How satisfied are you with your social life at the University of Arizona?
 

1	2	3	4	5	6	7	8	9
not at all							very much	
  
4. How satisfied are you with the academic program at the University of Arizona?
 

1	2	3	4	5	6	7	8	9
not at all							very much	
  
5. How much prejudice or racism have you directly experienced on the University of Arizona campus?
 

1	2	3	4	5	6	7	8	9
none							very much	
  
6. Before coming to the University of Arizona, how much prejudice or racism had you experienced?
 

1	2	3	4	5	6	7	8	9
none							very much	

7. While growing up were you mostly around

1	2	3	4	5	6	7	8	9
minorities only such as blacks & Hispanics			equally both minorities & whites			whites only		

8. If you had a second chance to choose a college, how likely is it that you would choose the University of Arizona again?

1	2	3	4	5	6	7	8	9
not at all							very much	

9. To what extent would you recommend the University of Arizona to Hispanic high school seniors who are interested in college?

1	2	3	4	5	6	7	8	9
not at all							very much	

Because this brochure will be distributed to new students of different racial/ethnic backgrounds, we are also interested in your recommendations to students who are of a different race than yourself. Therefore, please circle the number in the following items that best represents you feelings:

10. To what extent would you recommend the University of Arizona to black high school senior who is interested in college?

1	2	3	4	5	6	7	8	9
not at all							very much	

11. To what extent would you recommend the University of Arizona to a white high school senior who is interested in college?

1	2	3	4	5	6	7	8	9
not at all							very much	



7. While growing up were you mostly around

1	2	3	4	5	6	7	8	9
minorities only such as blacks & Hispanics			equally both minorities & whites			whites only		

8. If you had a second chance to choose a college, how likely is it that you would choose the University of Arizona again?

1	2	3	4	5	6	7	8	9
not at all							very much	

9. To what extent would you recommend the University of Arizona to black high school seniors who are interested in college?

1	2	3	4	5	6	7	8	9
not at all							very much	

Because this brochure will be distributed to new students of different racial/ethnic backgrounds, we are also interested in your recommendations to students who are of a different race than yourself. Therefore, please circle the number in the following items that best represents your feelings:

10. To what extent would you recommend the University of Arizona to a Hispanic high school senior who is interested in college?

1	2	3	4	5	6	7	8	9
not at all							very much	

11. To what extent would you recommend the University of Arizona to a white high school senior who is interested in college?

1	2	3	4	5	6	7	8	9
not at all							very much	

## APPENDIX H—White Version

## COLLEGE SATISFACTION FORM

Directions: As you were told earlier, the University is currently developing a college guide for students considering attending the University of Arizona. The purpose of the brochure is to give high school seniors information about U of A students and the campus environment. Please respond to the following items as honestly as possible.

1. What do you like the most about being a student at the University of Arizona?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  
2. What do you dislike the most about being a student at the University of Arizona?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  
3. How satisfied are you with your social life at the University of Arizona?
 

1	2	3	4	5	6	7	8	9
not at all							very much	
  
4. How satisfied are you with the academic program at the University of Arizona?
 

1	2	3	4	5	6	7	8	9
not at all							very much	
  
5. If you had a second chance to choose a college, how likely is it that you would choose the University of Arizona again?
 

1	2	3	4	5	6	7	8	9
not at all							very much	
  
6. To what extent would you recommend the University of Arizona to high school seniors who are interested in college?
 

1	2	3	4	5	6	7	8	9
not at all							very much	



## LIST OF REFERENCES

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 87, 49-74.
- Allen, W. R. (1978). Race, family, and adolescent achievement orientation. Journal of Negro Education, 47, 230-243.
- Allen, W. R. (1981). Correlates of black student adjustment, achievement, and aspirations at a predominantly white southern university. In G. E. Thomas (Ed.), Black students in higher education. Westport, CT: Greenwood Press.
- Allen, W. R. (1982). Black and blue: Black students at the University of Michigan. LSA (Alumni magazine of the College of Literature, Science, and Arts, University of Michigan), 6, 13-17.
- Allport, G. (1954). The nature of prejudice. Reading, MA: Addison-Wesley.
- Anderson, C. A. (1983a). The causal structure of situations: The generation of plausible causal attributions as a function of type of situation. Journal of Experimental Social Psychology, 45, 1136-1147.
- Anderson, C. A. (1983b). Motivational and performance deficits in interpersonal settings: The effects of attributional style. Journal of Personality and Social Psychology, 45, 1136-1147.
- Anderson, C. A. (1980). Motivational and performance deficits as a function of attributional style. Unpublished doctoral dissertation, Stanford University, Palo Alto, CA.
- Anderson, C. A., & Arnoult, L. H. (1985). Attributional style and everyday problems of living: Depression, loneliness, and shyness. Social Cognition, 3, 16-35.
- Anderson, C. A., Horowitz, L. M., & French, R. (1983). Attributional style of lonely and depressed people. Journal of Personality and Social Psychology, 45, 127-136.
- Astin, A. W. (1972). Racial considerations in admissions. In E. G. Epps (Ed.), Black students in white schools. Worthington, OH: Charles A. Jones Publishing.
- Astin, A. W. (1982). Minorities in American higher education. San Francisco: Jossey-Bass.
- Atkinson, D. R. (1983). Ethnic similarity in counseling psychology: A review of research. The Counseling Psychologist, 11, 79-92.
- Babbitt, C. E., Burbach, H. J., & Thompson, M. A., III. (1975). Organizational alienation among black college students: A comparison of three educational settings. Journal of College Student Personnel, 16, 53-56.
- Baker, T. L. (1976). The weakening of authoritarianism in black and white college students. Sociology and Social Research, 60, 440-460.

- Banks, W. M. (1972). The differential effects of race and social class in helping. Journal of Clinical Psychology, 28, 90-92.
- Barnes, E. J. (1972). The black community and black students in white colleges and universities. In E. G. Epps (Ed.), Black Students in white schools. Worthington, OH: Charles A. Jones Publishing.
- Barrett, C. J., & Becker, R. M. (1978, April). The prediction of adjustment to widowhood from social and demographic data. Paper presented at the meeting of the Western Social Science Association, Denver, Colorado.
- Battle, E. S., & Rotter, J. B. (1963). Children's feelings of personal control as related to social class and ethnic group. Journal of Personality, 31, 482-490.
- Baldwin, J. (1962). The fire next time. New York: Dial Press.
- Beck, A. T. (1967a). Depression. New York: Hoeber.
- Beck, A. T. (1967b). Depression: Clinical, experimental, and theoretical aspects. New York: Harper & Row.
- Beck, A. T., Beck, R. W. (1972). Screening depressed patients in family practice: A rapid technique. Postgraduate Medicine, 52, 81-85.
- Beck, A. T., & Greenberg, R. C. (1974). Cognitive therapy with depressed women. In V. Frank & V. Burtle (Eds.), Women in therapy. New York: Basic Books.
- Berke, B., & Peplau, L. A. (1976). Loneliness in the university. Paper presented at the annual meeting of the Western Psychological Association, Los Angeles.
- Berle, B. B. (1958). Eighty Puerto Rican families in New York City. New York: Columbia University Press.
- Beutler, L. E. (1983). Eclectic psychotherapy: A systematic approach. New York: Pergamon Press.
- Billingsley, A. (1968). Black families in white America. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Block, C. B. (1984). Diagnostic treatment issues for black patients. The Clinical Psychologist, 37, 51-54.
- Boyd, W. M., II. (1974). Desegrating American Colleges. New York: Praeger.
- Bradburn, N. (1969). The structure of psychological well being. Chicago: Aldine.
- Braddock, J. H., II. (1978). Radicalism and alienation among black college students. Negro Educational Review, 29, 4-21.
- Braddock, L. H., II. (1981). Desegregation and black student attrition. Urban Education, 15, 403-418.

- Bragg, M. E. (1979). A comparative study of loneliness and depression. Dissertation Abstracts International, 39, 79-13710.
- Burbach, H. J. (1972). The development of a contextual measure of alienation. Pacific Sociological Review, 15, 225-234.
- Burbach, H. J., & Thompson, M. A., III. (1971). Alienation among college freshmen: A comparison of Puerto Rican, black, and white students. Journal of College Student Personnel, 12, 248-252.
- Burbach, H. J., & Thompson, M. A., III. (1973). Note on alienation, race, and college attrition. Psychological Reports, 33, 273-274.
- Cantril, H. (1944). Gauging public opinion. Princeton: Princeton University Press.
- Cardoso, J. J. (1969). Ghetto blacks and college policy. Liberal Education, 55, 363-372.
- Carmichael, S., & Hamilton, C. V. (1967). Black Power. New York: Random House.
- Casas, J. M. (1985). A reflection of the status of racial/ethnic minority research. The Counseling Psychologist, 13, 581-598.
- Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. Journal of Personality and Social Psychology, 41, 330-339.
- Chelune, G. J. (1979, September). Disclosure flexibility and interpersonal functioning. Paper presented at the annual meeting of the American Psychological Association, New York.
- Clark, C. (1972). Black studies or the study of black people. In R. Jones (Ed.), Black Psychology. New York: Harper and Row.
- Comstock, G. W., & Helsking, K. J. (1972). Symptoms of depression in two communities. Psychological Medicine, 6, 551-563.
- Corazzini, J. G., Wilson, S. E., & Huebner, L. (1976). The Environmental Satisfaction Questionnaire. Fort Collins, CO: Rocky Mountain Behavioral Sciences Institute.
- Cordova, J., & Jacobs, K. W. (1983, April). A cross-cultural comparison of psychological differences between college students in New Orleans and San Juan. Paper presented at the meeting of the Southwestern Psychological Association, San Antonio, TX.
- Costello, C. G., & Comrey, A. L. (1967). Scales for measuring depression and anxiety. Journal of Psychology, 66, 303-313.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. Journal of Consulting Psychology, 24, 349-354.
- Cutrona, C. E. (1982). Transition to college: Loneliness and the process of social adjustment. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research, and therapy. New York: Wiley.

- Cutrona, C. E. (1983). Causal attributions and perinatal depression. Journal of Abnormal Psychology, 92, 161-172.
- Cutrona, C. E., & Peplau, L. A. (1979, April). A longitudinal study of loneliness. Paper presented at the annual meeting of the Western Psychological Association, San Diego, CA.
- Cutrona, C. E., Russell, D., & Jones, R. D. (1984). Cross-situational consistency in causal attributions: Does attributional style exist. Journal of Personality and Social Psychology, 47, 1043-1058.
- Davis, J. A., & Borders-Patterson, A. (1973). Black students in predominantly white North Carolina colleges and universities. Research Report 2. New York: College Entrance Examination Board.
- Dawkins, M. P., & Dawkins, R. L. (1980). Perceptions and experiences as correlates of academic performance among blacks at a predominantly white university: A research note. College and University, 55, 171-180.
- Dean, D. G. (1961). Alienation: Its meaning and measurement. American Sociological Review, 26, 753-758.
- de Jong-Gierveld, J., & Raadschelders, J. (1982). Types of loneliness. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research, and therapy. New York: Wiley.
- Derogatis, L. R. (1977). The SCL-90 revised manual. Baltimore, MD: John Hopkins University School of Medicine.
- Derogatis, L. R., & Cleary, P. A. (1977a). Factorial invariance across gender for the primary symptom dimensions of the SCL-90. British Journal of Social and Clinical Psychology, 16, 347-356.
- Derogatis, L. R., & Cleary, P. A. (1977b). Confirmation of the dimensional structure of the SCL-90: A study in construct validity. Journal of Clinical Psychology, 33, 981-984.
- Derogatis, L. R., Lipman, R. S., & Covi, L. (1973). The SCL-90: An outpatient psychiatric rating scale - Preliminary report. Psychopharmacology Bulletin, 9, 13-27.
- Derogatis, L. R., Rickels, K., & Rook, A. F. (1976). The SCL-90 and the MMPI: A step in the validation of a new self-report scale. British Journal of Psychiatry, 128, 280-289.
- Dweck, C. S., & Goetz, T. E. (1978). Attributions and learned helplessness. In J. Harvey, W. Ickes, & R. Kidd (Eds.), New directions in attribution research (Vol. 1). Hillsdale, NJ: Erlbaum.
- Eaton, W., & Kessler, L. (1981). Rates of symptoms of depression in a national sample. American Journal of Epidemiology, 144, 528-538.

- Eaves, G., & Rush, A. J. (1984). Cognitive patterns in symptomatic and remitted unipolar major depression. Journal of Abnormal Psychology, 93, 31-40.
- Edwards, A. L. (1957). The social desirability variable in personality assessment and research. New York: Dryden.
- Ellison, C. W., & Paloutzian, R. (1979, September). Religious experience and quality of life. Spiritual well-being, loneliness, and perceived quality of life. Symposium conducted at the American Psychological Association Convention, New York.
- English, W. H. (1957). Minority group attitudes of negroes and implications for guidance. Journal of Negro Education, 26, 99-107.
- Erny, P. (1984). Childhood and the cosmos: The social psychology of the Black African child. New York: Black Orpheus Press.
- Falcov, C. J. (1982). Mexican families. In M. McGoldrick, J. K. Pearce, & J. Giordano Giorclano (Eds.), Ethnicity and family therapy. New York: Guilford Press.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. Journal of Consulting and Clinical Psychology, 43, 522-527.
- Fitts, W. (1965). Tennessee Self-Concept Scale. Nashville, TN: Counselor Recordings and Tests.
- Fleming, J. (1981a). Special needs of blacks and other minorities. In A. W. Chickening, & Associates (Eds.), The modern American College. San Francisco: Jossey-Bass.
- Fleming, J. (1981b). Stress and satisfaction in college years of black students. Journal of Negro Education, 50, 307-318.
- Fleming, J. (1982). Sex differences in the impact of college environments on black students. In P. G. Perun (Ed.), The undergraduate woman: Issues in educational equity. Lexington, MA: D. C. Heath.
- Fontaine, G. (1974). Social comparison and some determinants of expected personal control and expected performance in a novel task situation. Journal of Personality and Social Psychology, 29, 487-496.
- Frazier, D. J., & DeBlassie, R. R. (1982). A comparison of self-concept in Mexican-American and non-Mexican-American late adolescents. Adolescence, 17, 327-334.
- Garza, R. T., & Nelson, D. B. (1973). A comparison of Mexican and Anglo-American perceptions of the university environment. Journal of College Student Personnel, 14, 399-401.
- Gibbs, J. T. (1973). Black students/white university: Different expectations. Personnel and Guidance Journal, 51, 463-469.

- Gibbs, J. T. (1974). Patterns of adaptation among black students at a predominantly white university: Selected case studies. American Journal of Orthopsychiatry, 44, 728-740.
- Glazer, N., & Moynihan, D.P. (1963). Beyond the Melting Pot. Cambridge, MA: Harvard University Press.
- Goetz, T. E., & Dweck, C. S. (1980). Learned helplessness in social situations. Journal of Personality and Social Psychology, 39, 246-255.
- Gold, J. H., Garver, J. B., Murphy, D., & Weldon, K. L. (1980). Youth in transition: Mental health problems of black and Micmac students at Delhousie University. Canadian Journal of Psychiatry, 25, 49-56.
- Golin, S., Sweeney, P. D., & Shaefer, D. E. (1981). The causality of causal attributions in depression: A cross-lagged panel correlation analysis. Journal of Abnormal Psychology, 90, 14-22.
- Gordon, S. (1976). Lonely in America. New York: Simon and Schuster.
- Gough, H. G., Fioravanti, M., & Lazzari, R. (1979). A cross-cultural unisex ideal self scale for the Adjective Check List. Journal of Clinical Psychology, 35, 314-319.
- Graham, C., Baker, R. W., & Wapner, S. (1985). Prior interracial experience and black student transition into predominantly white colleges. Journal of Personality and Social Psychology, 47, 1146-1154.
- Grier, W. H., & Cobbs, P. (1968). Black Rage. New York: Basic Books.
- Harper, F. D. (1969). Black revolt on the white campus. Journal of College Student Personnel, 10, 291-295.
- Harper, F. D. (1975). Black Students: White Campus. Washington, D.C.: APGA Press.
- Harris, A. R., & Stokes, R. (1978). Race, Self-esteem, and the Protestant Ethnic. Social Problems, 26, 71-85.
- Harwood, A. (Ed.). (1981). Ethnicity and medical care. Cambridge, MA: Harvard University Press.
- Hathaway, S. R., & McKinley, J. C. (1943). Booklet for the MMPI. New York: The Psychological Corporation.
- Hedgegard, J. M. (1972). Experiences of black college students at predominantly white institutions. In E. G. Epps (Ed.), Black students in white schools. Worthington, CT: Charles A. Jones Publishing.
- Hedgegard, J. M., & Brown, D. R. (1969). Encounters of some negro and white freshmen with a public multiuniversity. Journal of Social Issues, 25, 131-144.
- Heider, F. (1958). The psychology of interpersonal relations. New York: Wiley.

- Hill, R. B. (1972). The strength of black families. New York: Emerson Hall.
- Hofstatter, P. R. (1957). Gruppendynamik - Kritik der Massen psychologie. Hamburg, Germany: Rowholt.
- Horowitz, L. M., & French, R. (1979). Interpersonal problems of people who describe themselves as lonely. Journal of Consulting and Clinical Psychology, *47*, 762-764.
- Horowitz, L. M., French, R., & Anderson, C. A. (1982). The prototype of a lonely person. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research, and therapy. New York: John Wiley and Sons.
- Hyman, H. H., Cobb, W. J., Feldman, J. J., & Stember, C. H. (1954). Interviewing in social research. Chicago: University of Chicago Press.
- Ickes, W. J., & Layden, M. A. (Eds.). (1978). An attribution style. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research (Vol. 2). Hillsdale, NJ: Erlbaum.
- Jackson, J. (1975). Aging in black women. Washington, D. C.: College and University Press.
- Jackson, J. J. (1981). Urban Black Americans. In A. Harwood (Ed.), Ethnicity and medical care, Cambridge, MA: Harvard University Press.
- Jaco, E. (1954). The social isolation hypothesis and schizophrenia. American Sociological Review, *19*, 567-577.
- Jacobs, J. (1971). Adolescent suicide. New York: Wiley.
- Jennings, D. L. (1980). Effects of attributing failure to ineffective strategies. Dissertation Abstracts International, *40B*, 5461B.
- Jenson, G. F., White, C. S., & Galliher, J. M. (1982). Ethnic status and adolescent self-evaluations: An extension of research on minority self-esteem. Social Problems, *30*, 226-239.
- Johnson, N. J., Wyer, R., & Guilbert, N. (1967). Quality education and integration: An exploratory study. Phylon, *28*, 221-229.
- Jones, E. E. (1984). Some reflections on the black patient and psychotherapy. The Clinical Psychologist, *37*, 62-65.
- Jones, J. M., & Block, C. B. (1984). Black cultural perspectives. The Clinical Psychologist, *37*, 58-62.
- Jones, W. H. (1978, August). The persistence of loneliness. In D. Perlman (Chair), Toward a psychology of loneliness. Symposium conducted at the annual meeting of the American Psychological Association, Toronto.

- Jones, W. H. (1982). Loneliness and social behavior. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook in current theory, research, and therapy. New York: John Wiley & Sons.
- Jones, W. H., Carpenter, B. N., & Quintana, D. (1985). Personal and interpersonal predictors of loneliness in two cultures. Journal of Personality and Social Psychology, 48, 1503-1511.
- Jones, W. H., Freemon, J. E., & Goswick, R. A. (1981). The persistence of loneliness: Self and other determinants. Journal of Personality, 49, 27-48.
- Jones, W. H., Hansson, R. O., & Smith, T. G. (1980). Loneliness and love: Implications for psychological and interpersonal functioning. Unpublished manuscript, University of Tulsa.
- Jones, J. C., Harris, L. G., & Hauck, W. E. (1975). Differences in perceived sources of academic difficulties: Black students in predominantly black and predominantly white colleges. Journal of Negro Education, 44, 519-529.
- Jones, W. H., Hobbs, S. A., Hockenbury, D. (1982). Loneliness and social skill deficits. Journal of Personality and Social Psychology, 42, 682-689.
- Jourard, S. M. (1971). Self-disclosure: An experimental analysis of the transparent self. New York: Wiley - Interscience.
- Jourard, S. M., & Lazakow, R. (1958). Some factors in self-disclosure. Journal of Abnormal and Social Psychology, 56, 91-98.
- Kadushin, C. (1969). Why people go to psychiatrists. New York: Atherton Press.
- Kaplan, H. B., & Pokorny, A. D. (1969). Self-derogation and psychosocial adjustment. Journal of Nervous and Mental Disease, 149, 421-434.
- Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. In M. R. Rosenzweig, & L. W. Porter (Eds.), Annual review of psychology (Vol. 31). Palo Alto, CA: Annual Reviews.
- Keniston, K. (1960). Alienation and the decline of utopia. The American Scholar, 29, 164.
- Kilson, M. (1973a). Blacks at Harvard: Crisis and change. Harvard Bulletin, 75, 24-27.
- Kilson, M. (1973b). Blacks at Harvard: Solutions and prospects. Harvard Bulletin, 75, 31-32; 41-42.
- Kleinbaum, D. G., & Kleinbaum, A. (1976). The minority experience at a predominantly white university - A report of a 1972 survey at the University of North Carolina at Chapel Hill. Journal of Negro Education, 45, 312-328.
- Kuhn, T. (1963). The structure of scientific revolutions. Chicago: University of Chicago Press.

- Kukla, A. (1972). Attributional determinants of achievement-related behavior. Journal of Personality and Social Psychology, 21, 166-174.
- Ladner, J. A. (1972). Tomorrow's tomorrow: The black woman. Garden City, NY: Anchor.
- Lawson, H. H. (1983). College bound blacks: How to succeed in college. Tucson, AZ: Lawson's Psychological Service.
- Lefcourt, H. M., & Ladwig, G. W. (1965a). The American Negro: A problem in expectancies. Journal of Personality and Social Psychology, 1, 337-380.
- Lefcourt, H. M., & Ladwig, G. W. (1965b). The effect of reference group upon Negroes' task persistence in a biracial competitive game. Journal of Personality and Social Psychology, 1, 668-671.
- Lewis, O. (1965). La Vida. New York: Vintage Books.
- Loucks, S. (1980). Loneliness, affect, and self-concept: Construct validity of the Bradley Loneliness Scale. Journal of Personality Assessment, 44, 142-147.
- Lynch, J. J. (1976). The broken heart: The medical consequences of loneliness in America. New York: Basic Books.
- Madrazo-Peterson, R., & Rodriguez, M. (1978). Minority student perceptions of a university environment. Journal of College Student Personnel, 19, 259-263.
- Malcolm X. (1964). The autobiography of Malcolm X. New York: Grove Press.
- Manly, P. C., McMahon, R. O., Bradley, C. F., & Davidson, P. O. (1982). Depressive attributional style and depression following childbirth. Journal of Abnormal Psychology, 91, 245-254.
- McCormick, S. H., & Kahn, A. (1980, May). Behavioral characteristics of lonely and nonlonely college students. Paper presented at the annual meeting of the Midwestern Psychological Association, St. Louis.
- McMahan, I. D. (1973). Relationships between the causal attributions and expectancies of success. Journal of Personality and Social Psychology, 28, 108-114.
- Mendoza, A. P. (1980). Stress and coping: A comparison of coping efficacy between Anglo and Mexican American university students. Unpublished doctoral dissertation, University of TX, Austin.
- Merton, R. K. (1947). Mass persuasion. New York: Harper and Brothers.
- Michela, J. L., Peplau, L. A., & Weeks, D. G. (1980). Perceived dimensions and consequences of attributions for loneliness. Unpublished manuscript, University of California, Los Angeles.

- Michela, J. L., Peplau, L. A., & Weeks, D. G. (1981). Perceived dimensions and consequences of attributions for loneliness. Unpublished manuscript, Columbia University, New York.
- Michela, J. L., Peplau, L. A., & Weeks, D. G. (1982). Perceived dimensions of attributions for loneliness. Journal of Personality and Social Psychology, *43*, 929-936.
- Mirande, A., & Enriquez, E. (1980). La Chicana - The Mexican-American woman. Chicago: The University of Chicago Press.
- Moore, J. A., & Sermat, V. (1974). Relationship between loneliness and interpersonal relationships. Canadian Counselor, *8*, 84-89.
- Morgan, G. D. (1970). The ghetto college student: A descriptive essay on college youth from the inner city. Iowa City, IA: American College Testing Program.
- Moustakas, C. E. (1972). Loneliness and love. Englewood Cliffs, NJ: Prentice Hall.
- Munoz, D., & Garcia-Bahne, B. (1978). A study of the Chicano experience in higher education. (NIMH Contract No. NN24597-01). San Diego: University of California.
- Murillo, N. (1971). The Mexican-American family. In N. Wagner, & M. Haug (Eds.), Chicano: Social and psychological perspectives. St. Louis, MO: C. V. Mosby.
- Nobles, W. W., & Goddard, L. L. (1984). Understanding the black family: A guide for scholarship and research. Oakland, CA: Institute for the Advanced Study of Black Family Life and Culture, Inc.
- Ostrone, N. (1978). Expectations for success on effort-determined tasks as a function of incentive and performance feedback. Journal of Personality and Social Psychology, *36*, 909-916.
- Paloutzian, R. F., & Ellison, C. W. (1982). Loneliness, spiritual well-being and the quality of life. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: John Wiley & Sons.
- Peplau, L. A., & Perlman, D. (Eds.). (1982). Loneliness: A sourcebook of current theory, research and therapy. New York: John Wiley & Sons.
- Peplau, L. A., Russell, D., & Heim, M. (1979). The experience of loneliness. In I. Frieze, D. Bar-Tal, & J. Carrol (Eds.), New approaches to social problems. San Francisco: Jossey-Bass.
- Perlman, D., Gerson, A. C., & Spinner, B. (1978). Loneliness among senior citizens: An empirical report. Essence, *2*, 239-248.
- Peterson, R. E. (1968). Technical manual: College student questionnaires (Revised edition). Princeton, NJ: Educational Testing Service, Institutional Research Program for Higher Education.

- Pettigrew, T. F. (1964). A profile of the Negro American. Princeton: D. Van Nostrand.
- Pfeiffer, C. M., & Schneider, B. (1974). University climate perceptions by black and white students. Journal of Applied Psychology, 59, 660-662.
- Pliner, J. E., & Brown, D. (1985). Projections of reactions to stress and preference for helpers among students from four ethnic groups. Journal of College Student Personnel, 26, 147-151.
- Popper, K. R. (1961). The poverty of historicism. New York: Harper and Row.
- Powell, E. H. (1958). Occupation, status, and suicide: Toward a redefinition of anomie. American Sociological Review, 23, 131-139.
- Pruitt, A. S. (1970). Black poor at white colleges - Personal growth goals. Journal of College Student Personnel, 11, 3-7.
- Reimann, G. (1977). Locus of control in American and Northeastern Nigerian students. Journal of Social Psychology, 103, 309-310.
- Reimer, D. S. (1975). Influence of causal beliefs on affect and expectancy. Journal of Personality and Social Psychology, 31, 1163-1167.
- Rook, K. S., & Peplau, L. A. (1982). Perspectives on helping the lonely. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research, and therapy. New York: Wiley.
- Rosenbaum, R. M. (1972). A dimensional analysis of the perceived causes of success and failure. Unpublished doctoral dissertation, University of California, Los Angeles.
- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, (Whole No. 609).
- Rubel, A. J. (1970). The family. In J. H. Burma (Ed.), Mexican-Americans in the United States. Cambridge, MA: Schenkman Publishing Co.
- Rubenstein, C., & Shaver, P. (1979). Loneliness in two northeastern cities. In J. Hartzog & R. Audy (Eds.), The anatomy of loneliness. New York: International Universities Press.
- Russell, D. (1982). The measurement of loneliness. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: John Wiley & Sons.
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. Journal of Personality and Social Psychology, 39, 472-480.

- Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. Journal of Personality Assessment, 42, 290-294.
- Sattler, J. M. (1970). Racial "experimenter effects" in experimentation, testing, interviewing, and psychotherapy. Psychological Bulletin, 73, 137-160.
- Schultz, N. R., & Moore, D. (1984). Loneliness: Correlates, attributions, and coping among older adults. Personality and Social Psychology Bulletin, 10, 67-77.
- Schmitt, J. P., & Kurdek, L. A. (1985). Age and gender differences in and personality correlates of loneliness in different relationships. Journal of Personality Assessment, 49, 485-496.
- Scott, P. B. (1978). Two sides of the coin: Black students in white institutions. Journal of the National Association for Women Deans, Administrators and Counselors, 41, 62-66.
- Sedlacek, W. E. (1974). Issues in predicting black student success in higher education. Journal of Negro Education, 43, 512-516.
- Sedlacek, W. E., & Brooks, G. C. (1970). Black freshmen in large colleges: A survey. Personnel and Guidance Journal, 49, 307-312.
- Seeman, M. (1959). On the meaning of alienation. American Sociological Review, 24, 783-791.
- Seevers, S. (1972). Loneliness and the college student. Unpublished Master's Thesis, University of Nebraska, Lincoln.
- Seligman, M. E. R., Abramson, L. Y., Semmel, A., & Von Baeyer, C. (1979). Depressive attributional style. Journal of Abnormal Psychology, 88, 242-248.
- Silber, E., & Tippett, J. S. (1965). Self-esteem: Clinical assessment and measurement validation. Psychological Reports, 16, 1017-1071.
- Simmons, R. G., Brown, L., Bush, D., & Blyth, D. A. (1978). Self-esteem and achievement of black and white adolescents. Social Problems, 26, 86-96.
- Skilbeck, W. M., Acosta, F. X., Yamamoto, J., & Evans, L. A. (1984). Self-reported psychiatric symptoms among black, Hispanic and white outpatients. Journal of Clinical Psychology, 40, 1184-1189.
- Slater, P. (1976). The pursuit of loneliness. Boston: Beacon Press.
- Smith, D. H. (1981). Social and academic environments of black students on white campuses. Journal of Negro Education, 50, 299-306.
- Solano, C. H., & Parish, E. (1979). Loneliness and perceived level of self-disclosure. Unpublished manuscript, Wake Forest University, Worcester, MA.
- Staples, R. (1971). Toward a sociology of the black family: A decade of theory and research. Journal of Marriage and the Family, 33, 19-38.

- Storms, M. D., & McCaul, K. D. (1976). Attribution processes and emotional exacerbation of dysfunctional behavior. In J. Harvey, W. Ickes, & N. Kidd (Eds.), New directions in attribution research (Vol. 1). Hillsdale, NJ: Erlbaum.
- Sue, D. W. (1981). Counseling the culturally different: Theory and practice. New York: John Wiley.
- Suen, H. K. (1983). Alienation and attribution of black college students on a predominantly white campus. Journal of College Student Personnel, 24, 117-121.
- Tabachnick, B. G., & Fidell, L. S. (1983). Using multivariate statistics. New York: Harper and Row, Publishers.
- Tate, G. L., & Baker, N. C. (1978). Ethnic variations in the presentation of psychological concerns to the university counseling center. College Student Journal, 12, 12-18.
- Valle, V. A., & Frieze, I. H. (1976). Stability of causal attributions as a mediator in changing expectations for success. Journal of Personality and Social Psychology, 33, 579-587.
- Walker, S. V. (1976). Transitional experiences of black students at a predominantly white university. Dissertation Abstracts International, 37, 7997A.
- Warheit, G., Holzer, C. E., & Arey, S. A. (1975). Race and mental illness: An epidemiologic update. Journal of Health and Social Behavior, 16, 243-256.
- Webster, D. W., Sedlacek, W. E., & Miyares, J. (1979). A comparison of problems perceived by minority and white university students. Journal of College Student Personnel, 20, 165-170.
- Weiner, B. (Ed.). (1974). Achievement motivation and attribution theory. Morristown, NJ: General Learning Press.
- Weiner, B. (1979). A theory of motivation for some classroom experiences. Journal of Educational Psychology, 71, 3-25.
- Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., & Rosenbaum, R. M. (1972). Perceiving the Causes of Success and Failure. In E. E. Jones et al. (Eds.), Attribution: Perceiving the causes of behavior. Morristown, NJ: General Learning Press.
- Weiner, B., Nierenberg, R., & Goldstein, M. (1976). Social learning (locus of control) versus attributional (causal stability) interpretations of expectancy of success. Journal of Personality, 44, 52-68.
- Weiner, B., Russell, D., & Lerman, D. (1978). Affective consequences of causal ascriptions. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research (Vol. 2). Hillsdale, NJ: Erlbaum.
- Weiss, R. S. (1973). Loneliness: The experience of emotional and social isolation. Cambridge, MA: MIT Press.

- Weissman, A. N. (1980). Assessing depressogenic attitudes: A validation study. Paper presented at the annual meeting of the Eastern Psychological Association, Hartford, CT.
- Wenz, V. F. (1977). Seasonal suicide attempts and forms of learning. Psychological Reports, 40, 807-810.
- Widlak, F. W., & Garza, R. T. (1975, September). Determinants of Chicano and Anglo student perceptions of university environment. Paper presented at the annual meeting of the American Psychological Association, Chicago, September, 1975.
- Wilbert, J. R., & Rupert, P. A. (1986). Dysfunctional attitudes, loneliness, and depression in college students. Cognitive Therapy and Research, 10, 71-77.
- Wilkinson, A. G. (1982). Mexican Americans. In A. Gaw (Ed.), Cross-cultural psychiatry. Boston: John Wright/PSD.
- Willie, C. V. (1969). Researchers to work! Integrated Education, 7, 32-38.
- Willie, C. V. (1981). The ivory and ebony towers. Lexington, MA: D. C. Heath.
- Willie, C. V., & Levy, J. D. (1972, March). Black is lonely. Psychology Today, 50-52; 76-80.
- Willie, C. V., & McCord, A. S. (1972). Black students at white colleges. New York: Praeger
- Wolkon, G. H., Moriwaki, S., & Williams, K. J. (1973). Race and social class as factors in the orientation toward psychotherapy. Journal of Counseling Psychology, 20, 312-316.
- Wood, L. A. (1978). Loneliness, social identity and social structure. Essance, 2, 259-270.
- Wright, R. (1940). Native Son. New York: The Modern Library.
- Wylie, R. S. (1974). The self-concept (rev. ed.). Lincoln: University of Nebraska Press.
- Young, H. A., McAnulty, B. H., & Daly, B. E. (1981). Persistence and perceptions: White and black engineering students. Engineering Education, 72, 177-179.
- Young, J. E. (1979). Loneliness in college students: A cognitive approach. Dissertation Abstracts International, 40, 1392-B. (University Microfilms No. 7919535).
- Young, J. E. (1981). Young loneliness inventories. Unpublished manuscript, University of Pennsylvania.
- Young, J. E. (1982). Loneliness, depression, and cognitive therapy: Theory and application. In L. A. Peplau, & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: Wiley.
- Zuckerman, M., & Lubin, B. (1965). Manual for the Multiple Affect Adjective Checklist. San Diego, CA: Educational and Industrial Testing Service.