Sojourner alienation: an exploratory study of foreign student alienation

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Sojourner alienation: An exploratory study of foreign student alienation

by

Pongsawat Swatdipong

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CHAPTER I. INTRODUCTION

Statement of the Problem

Educational sojourn in an old-age phenomenon. In ancient times, students flocked to the centers of civilization and took home from these learning centers new ideas which changed the course of modern history. Study abroad is, however, not merely a form of "acquiring knowledge of an intellectual or technical nature outside one's own social and cultural environment" (Metraux, 1952:1). It is a reciprocal process of learning and adjustment that occurs when individuals travel for educational purposes in a socially and culturally foreign society for a limited period of time (Smith, 1956). It is a process of diffusion between the host society and the sojourner's original society.

Each year, large numbers of foreign students come to the United States for educational purposes. During the past twenty years, the foreign student population increased more than double every ten years. For instance, foreign student enrollment has risen from just over 40,000 in 1956/57 to over 100,000 in 1966/67 and to over 200,000 in 1976/77 (Julian and Slattery, 1978). These students come from more than 172 countries. In 1976/77 the ten countries having the largest foreign student population in the United States were Iran, Republic of China, Nigeria, Canada, Hong Kong, India, Vietnam, Japan, Mexico, and Thailand. Approximately 90 percent of these countries are developing nations.

The increasing flow of international students to the United States has, on the one hand, created new opportunities for international understanding and cooperation. On the other hand, cross-cultural contacts have
created new problems of interaction and adjustment among sojourner students as well as the host society. In the pursuit of study abroad, not only must these foreign students adjust to the educational system of the host society, but they must also adapt to the new socio-cultural environment. Upon their arrival, these educational sojourners will encounter new values, customs, and patterns of social relationships different, at least in some degree, from their own. This creates problems of adjustment to and interaction with the new socio-cultural environment.

It is only recently that these emerging problems have become the focus of scholarly attention resulting in various studies in the problems of interaction and adjustment within the host society among international students. Different theoretical and conceptual approaches have been employed. Recently, the U-curve hypothesis, originally proposed by Lysgaard (1955) and later developed by Morris (1960), Du Boise (1962), and Gullahorn and Gullahorn (1963), is regarded as a basic model for the socio-psychological adjustment process of foreign student sojourners. However, it has been criticized in that the empirical basis of the U-curve hypothesis is weak and does not allow any "far-reaching generalization" (Breitenbach, 1970). Accordingly, new approaches to the problems of adjustment and interaction of international students toward their host society are still needed.

The concept of alienation seems to have high potentiality in offering a new approach to the problems of interaction and adjustment among foreign student sojourners. Conceptually, the alienated person is unable to fully commit himself to his social roles or to norms and values of the host society. Consequently, his role performances often fall short of his potential. As far as the educational aspect is concerned, this theoretical
assertion has some empirical support. Findings from studies in various contexts have revealed that poor learning and high alienation are associated (Coleman et al., 1966; Seeman, 1962, 1963, 1966; Bullough, 1967). If there is widespread alienation among international students, the purposes of international understanding and cooperation as well as individual achievement would seem to be inhibited.

Studies of alienation in educational settings have been limited to American students, and some of these have exclusively involved minority students. However, almost no research on alienation of sojourners or international students has been found. This study is, therefore, an attempt to investigate foreign students' alienation as an aspect of sojourners' interaction and adjustment to the host society. Due to the dearth of sojourner alienation research and the consequent lack of theoretical and empirical basis, this study is exploratory aimed at discovering some significant socio-psychological factors in explaining and predicting variation in foreign student alienation.

Objectives of the Study

The objectives of this research can be summarized below.

1. To investigate selected social correlates of foreign student alienation to get a general description of its relationships with social background factors

2. To construct an exploratory causal model of sojourner alienation based solely upon theoretical reasoning

3. To apply the model to a sample of foreign students at Iowa State University
4. To investigate the degree of variation in foreign student alienation that can be explained and/or predicted by the model, employing path analysis technique with errors-in-variables approach.
CHAPTER II. THEORETICAL ORIENTATION

This chapter presents a description and discussion of the theoretical orientation employed in this study. The order in which these will be presented is conceptual background of alienation, social correlates of alienation, a context-specific approach to alienation, sources of alienation, an exploratory causal model of sojourner alienation, and a summary of general hypotheses.

Conceptual Background of Alienation

The concept of alienation is one of the most frequently used terms in sociology, especially in theory and research on individual and social structure. It is one of the five "essential unit ideas of sociology" (Nisbet, 1966). However, it is also "the most frequently misused, abused and misconstrued term in sociology" (Fischer, 1976:35). It thus seems desirable to discuss its conceptual background by tracing back to its origin. This section will, therefore, present an original conception, a traditional sociological conception, and a contemporary sociological conception.

An original conception

The history of alienation as a concept could be dated back to early theology and philosophy. However, Georg William Friedrich Hegel was "the first to use the term systematically in anything like the special ways in which it is used today" (Schacht, 1970). According to Schacht (1970), Hegel uses the term in two distinct senses: in the sense of "separation" or discordant relations and in the sense of "surrender."
Thus, alienation in the first sense refers to a separation or discordant relations between an individual and the social substance (social, political, and cultural institution) or between an individual's actual condition and essential nature, the latter sense is called "self-alienation." Alienation is used in connection with an awareness or feeling of the "otherness" of something. It is generally that which has become alien to the individual that is called "alienated." It is the social substance that is said to be alienated—in the perception of the individual—when he/she ceases to identify with it. This is different from today's conception that it is the individual who is alienated from social substance.

Hegel speaks of the individual as "self-alienated" in this latter situation. In ceasing to identify with the social substance, the individual loses his/her universality, and when this happens he/she no longer possesses his/her essence. He/she, therefore, alienates himself/herself from his/her essential nature or becomes "self-alienated." In addition, Hegel conceives a fundamental identity between the spirit which animates the individual and the spirit which has objectified itself in the social substance. The latter is conceived as the individual's "true" self. He concludes that when the social substance is separated from the individual, it is the individual's own true self that is alienated from him, therefore, the individual is self-alienated; he/she "fails to see that the social substance which seems alien to (him/her) is not really so, but rather is (his/her) own creation and objectification" (Schacht, 1970:51-52).

Alienation in the second sense refers to a kind of surrender or sacrifice. While Hegel regards alienation as separation from social substance and self-alienation as unfortunate conditions and to be overcome, he
regards alienation in the second sense as something desirable and to be perpetuated. It derives from the notion of surrendering or transferring a right to another. It involves a conscious surrender with the intention of securing a desired end—unity with the social substance. The unity between the individual and the social substance can be restored only through giving up one's self-assertion. Therefore, alienation as separation from the social substance and from the essential self can be overcome only through surrender of self-assertion.

Although the concept of alienation is central in the work of Hegel, it is Karl Marx who has had the greatest impact upon the conception of alienation as a sociological concept. It is the beginning of the transition from alienation as a philosophical concept to alienation as a socio-psychological concept.

According to Israel (1971), Marx, who borrowed from Hegel, conceived of human nature as having an essence, an active and creative being, and this would be realized under the condition of freedom. Under the capitalistic structure, however, man is transformed into a passive object in relation to the means, the products of production, and in his relationship to others. Therefore, he is separated from his own essential nature as an active and creative being. The process of alienation is revealed in work and in the division of labor. Work, for Marx, is the active relatedness of man to nature, the creation of a new world, and the creation of man himself. As private property and the division of labor develop, however, labor loses its character as an expression of one's powers and has an existence separate from him. The products of his labor also stand opposed to him as a power independent of the producer. Man is thus alienated from his labor,
the means, the products, and, in a sense, from himself, and also from others. In his later writing, Marx stresses the transformation of man into a commodity on the labor market and the estrangement of the workers from their products, resulting from private ownership of means of production. Therefore, Plasek (1974:318) concludes that alienation is a condition of human existence dialectically related to economic structure and productive, self-fulfilling activities. It involves the existence of the contradiction between man, his productive activities, and products of these efforts. These elements exercise control over him, rather than provide him the means for development of human potential through the process of self-creation and world creation.

It should be noted that the conception of alienation in Marx's writing is based upon an objective aspect of social structure and not a subjective aspect of an individual. This objective alienation could be said to exist even without awareness of an individual. For instance, it could occur under the condition of false consciousness when the individual is not aware of the exploitative nature of the social structure. In other words, the individual could be regarded as alienated even when he/she is not aware of its existence. As a matter of fact, it is even possible to regard the individual who feels alienated as less alienated than those who remain unaware of the objectively alienating conditions in the social structure.

To summarize, Marx regarded alienation as an objective phenomenon which is based and determined by the departure from some absolute ideal state of man's existence. We agree with Wegner (1975) that this conception of alienation is not conducive to social science which attempts to explain human behavior as it exists in the empirical world. As a concept conducive
to social science, it must be defined in relation to existing human attributes rather than in terms of an ideal state of what man should become.

A traditional sociological conception

The conception of alienation within the sociological tradition has appeared in writings of influential sociologists such as Max Weber, Émile Durkheim, Georg Simmel, and Ferdinand Tönnies. Although none of them wrote on the concept of alienation per se, they included related or similar ideas in their theoretical and/or empirical analyses of society. Weber's description of rationalization of man's role in bureaucracy, Durkheim's anomie theory, Simmel's description of individuals in the metropolis, and Tönnies's description of men in Gemeinschaft and in Gesellschaft societies are all relatively similar to the conception of alienation.

Weber, in his description of development of bureaucracy, emphasized the rationalization of man's role toward more efficiency in formal organization. The emphasis on the value of technical efficiency gives rise to the development of bureaucracy which in turn separates the individual's work roles from the total products of the whole organization. This process of bureaucratization results in dehumanizing and depersonalizing man in society. And this emphasis upon rationality, impersonality, and objectivity has an alienating effect upon man, according to Coser (1971).

Gerth and Mills (1973) contend that Weber views Marx's theory of worker alienation as one part of a more generalized context of bureaucratization. The worker being "separated" from the means of production is merely one special case in a series of a universal trend. For instance, the "modern soldier is equally separated from the means of violence; the
scientist from the means of enquiry, and the civil servant from the means of administration" (Gerth and Mills, 1973:50). In this sense Weber seems to extend Marx's argument by suggesting that it is not just individual workers who are alienated but also soldiers, bureaucrats, and others.

While Marx was concerned with the alienating process within the economic structure and Weber with alienation within the process of bureaucratization, Durkheim focused upon the anomic situation resulting when economic progress frees "industrial relations from all regulations." The concept of "anomie" was treated extensively in his influential work, Suicide (Durkheim, 1951). Whereas for Marx, alienation was an aspect of powerlessness, for Durkheim it was an aspect of normlessness.

Conceiving society as an organism controlled by normative regulations, Durkheim argued that man is a creature whose desires are unlimited. "The more one has the more one wants, since satisfactions received only stimulate instead of filling needs" (Durkheim, 1951:248). It is, therefore, not characteristic of human nature to regulate itself so as to maintain equilibrium; it is rather society which acts as an external regulatory force and which sets limits on individual propensities, that "each in his sphere vaguely realizes the extreme limits set to his ambitions and aspires to nothing beyond" (Durkheim, 1951:250). When the social regulations break down such in the case of industrialization, the social control of society upon individuals is no longer effective, and the individuals are left to their own devices. Such a situation Durkheim calls "anomie," a condition of relative normlessness in the society or some part of it.

Anomie does not refer to a state of mind but a property of social structure. It characterizes "a condition in which individual desires are
no longer regulated by common norms and where, as a consequence, individu­als are left without moral guidance in the pursuit of their goals" (Coser, 1971:132). The individual is in a state of anxiety and frustration over the feeling of normlessness and unsatiated desires. Such an anomic condi­tion is particularly acute when society is disturbed by "some painful crisis or by beneficent but abrupt transitions. . . . Then come the sudden rises in the curve of suicides" (Durkheim, 1951:252).

Comparing the central themes of Marx and Durkheim, Horton (1972) con­cluded that whereas Durkheim was interested in problems of the maintenance of order, Marx was interested in the problems of power and change. While "anomie" represents the problem of the adequacy of social control, aliena­tion involves the problem of the legitimacy of social control. To summa­rize, whereas Durkheim saw anomie as resulting from a state of under­regulation of social norms, Marx was alienation as resulting from a state of over-regulation of social norms; whereas the former will lead to a feeling of normlessness, the latter leads to a feeling of powerlessness.

Ferdinand Tönnies is another major sociologist deserving attention. Tönnies, in his book Community and Society (1957), described the separation between man and man. He makes a distinction between two essential forms of human association, Gesellschaft and Gemeinschaft. Gesellschaft is a social unit contractual in its nature, deliberately established by individuals to effectively pursue their proper interests. Gemeinschaft is a social unit which does not primarily come into being through conscious design; one finds oneself belonging to it as one belongs to one's home. Individuals enter a Gesellschaft with only a fraction of their being, with that part of their existence corresponding to the specific purpose of the organization.
In contrast, in Gemeinschaft, members are bound to each other as whole persons rather than fragmentary individuals. The purest form of Gemeinschaft is within the family, particularly in the relationship between mother and child. In the Gemeinschaft, unity prevails in spite of occasional separation; in the Gesellschaft, separation prevails in spite of occasional unity.

The separation between man and man in Gesellschaft is so deep that "everybody is by himself and isolated, and there exists a condition of tension against all others" (Tönnies, 1957:65). Thus, Gesellschaft becomes a social world in which latent hostility is inherent in the relationship of one to another. Tönnies held that society had moved from an age when Gemeinschaft was predominant toward an age where Gesellschaft prevailed.

Tönnies was especially interested in the interplay between the transition from Gemeinschaft to Gesellschaft and the changing direction of human will. He made a distinction between two forms of human will, Wesenwille and Kürwille. Wesenwille or natural will is impulsive, a spontaneous expression of man's drives and desires of his natural disposition. Kürwille or rational will is primarily shaped by the deliberative process of the rational mind. Wesenwille is "the will which includes the thinking"; Kürwille is "the thinking which encompasses the will" (Tönnies, 1957:103). The awareness of means and ends as two separate and independent categories is the core of Kürwille, whereas in Wesenwille they are undifferentiated.

According to Tönnies, Wesenwille carried the conditions for Gemeinschaft and Kürwilles develops Gesellschaft. As Gemeinschaft embraces all aspects of its members' lives, Wesenwille embodies and expresses the whole person's being. On the other hand, as individuals join Gesellschaft only with a segment of their lives, so where Kürwille prevails their lives
become subdivided and compartmentalized. Since Tönnies saw history as leading from Gemeinschaft toward Gesellschaft, he also saw it as proceeding from Wesenwille to Kürwille. According to him, in Gemeinschaft, man still has his center in his family, in the community and his social estate. Monetary economy is still weak and therefore individual ownership has not yet reached an acute state. However, as society slowly develops, feelings and ideas which previously prevailed begin to change. The individual centered on oneself and what belongs to him/her increasingly becomes the predominant type of man in society. Man thinks, calculates, and reckons his advantages. To him everything becomes a means to an end.

Georg Simmel made a similar description of the pervasive effects of city life upon individuals. In his article, "The Metropolis and Mental Life," which is regarded as dealing with the problem of alienation (Mills, 1959), Simmel pointed out:

with each crossing of the street, with the tempo and multiplicity of economic, occupational and social life the city sets up a deep contrast with small town and rural life with reference to the sensory foundation of psychic life. The metropolis exacts from man ... a different amount of consciousness than does rural life. ... Thus, the metropolitan type of man ... develops an organ protecting him against the threatening currents and discrepancies of his environment which would uproot him. He reacts with his head instead of his heart (Simmel, 1960:438).

Like Tönnies, Simmel related the development of a particular form of rationality with the type of money economy which is pervasive in the new industrial order and the dominant form of thinking in the metropolis. In the metropolis, "money becomes the common denominator of all values," and the "money economy has filled the days of people with weighing, calculating, with numerical determinations, with a reduction of qualitative values to quantitative ones" (Simmel, 1960:439-441).
Interconnected with the money economy and formal rationality in the industrial order is the division of labor. Here his description of the effects of the division of labor upon individuals is similar to that of Marx. According to Simmel, "the division of labor demands from the individual a one-sided accomplishment, and the greatest advance in one-sided pursuit only too frequently means dearth to personality of the individual" (Simmel, 1960:447). Under this condition the individual can cope less and less with the overgrowth of material culture. Man is reduced to a negligible quantity. "The individual becomes a mere cog in an enormous organization of things and powers which tear from his hands all progress, spiritually, and value in order to transform them from their subjective form into the form of a purely objective life" (Simmel, 1960:447).

A contemporary sociological conception

Robert K. Merton seems to be responsible for the intellectual resurrection and the refinement of the concept of alienation in contemporary American sociology with his seminal article, "Social Structure and Anomie," first published in 1938. Where Durkheim defined anomie as a gross lack of sufficient normative regulations in the social structure, Merton defined anomie as a "breakdown in the cultural structure, occurring particularly when there is an acute disjunction between the cultural norms and goals and the socially structured capacities of members of the group to act in accord with them" (Merton, 1957:162). In other words, anomie results when there is a discrepancy between the goals of the society, which are culturally defined and accepted, and the institutionalized norms or means for achieving those goals. Merton went on to describe categories of role adjustment
in response to this anomic condition. These include "innovation," accepting the cultural goals but rejecting the institutionalized means of attaining them; "ritualism," rejecting the goals but accepting the institutionalized means; "retreatism," rejecting both the cultural goals and the institutionalized means; and "rebellion," rejecting both the goals and the means and attempting to introduce a new social order with new goals and means.

With regard to the concept of alienation, it is interesting to note that Merton used the term only once (in his reference to retreatism). He identified individuals who accept the ritualistic role adjustment as the "true aliens"; since they do not share the common frame of orientation, they can be said to be "in the society, but not of it."

On the other hand, Talcott Parsons dealt more broadly with the concept of alienation. In his book, The Social System (1951), Parsons subsumes Merton's anomie theory under his general theory of deviance but prefers to resurrect the term alienation. Parsons uses the term alienation in a new way. He uses the concept in connection with the process of socialization or the acquisition of value orientation patterns of the individual in the formation of basic personality structure. He notes that "alienation is always a possible product of something going wrong in the process of value-acquisition through identification" with significant others (Parsons, 1951:233).

There are two types of alienation, according to Parsons, primary alienation and secondary alienation. Primary alienation is "the generalized alienation from the value patterns involved in the role-expectation." This "would motivate the actor to avoid conformity with these patterns"
(Parsons, 1951:234). It is built into the primary value orientation pattern of personality and gives direction to the distribution of variability away from the modal personality type which predisposes to conformity with major role-expectations. Secondary alienation is "a consequence of the fact that a personality with a given value-orientation pattern in (the individual's) character is faced, in a specific role, with role expectations which are uncongenial to his need-dispositions and that, therefore, he is motivated to try to avoid conformity with them" (Parsons, 1951:234).

In sum, alienation is defined in terms of the opposition to conformity to role expectations within the society, a variation away from the modal personality type.

Interestingly enough, where Durkheim seems solely concerned with social structure and where Merton, though primarily interested in social structure, gives some consideration to individual adjustment, Parsons moves down even further. Here individual attitudes and motivation receives as much attention as social-structural sources of alienation. Chronologically, it seems that there has been a transition in the conceptualization of alienation from the macro-sociological analysis to a micro-sociological one. Since the time of Merton's and Parsons's first works on alienation, scholarly attention has shiften from the social-structural analysis to the more micro- or social-psychological analysis and from the more abstract level to the more concrete one.

Following Merton's work, Leo Srole presented a study on anomie. In his article, "Social Integration and Certain Corollaries: An Exploratory Study," Srole (1956) uses the term "anomia" to refer to "the individual's generalized pervasive sense of self-to-others distance and self-to-others
alienation." More recently, efforts to refine the concept of alienation have been taken by many sociologists. However, the best known and the most widely quoted work is that of Melvin Seeman, especially his article "On the Meaning of Alienation" (Seeman, 1959).

Employing the social-psychological framework, focusing on individual expectations concerning social objects and using a subjective approach, Seeman identifies six dimensions or meanings of alienation (Seeman, 1959, 1972a). These six dimensions are presented below:

1. **Powerlessness** refers to "the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks" (Seeman, 1959:784). In other words, it is "a low expectancy that one's own behavior can control the occurrence of personal and social reward" (Seeman, 1972a:472). Seeman traces the usage of this conception back to Marx and Weber. However, he emphasizes that powerlessness here is not viewed from the objective aspect of social condition but from the perception of the individual, although the objective condition may be relevant to it.

2. **Meaninglessness** refers to "a low expectancy that satisfactory predictions about future outcomes of behavior can be made" (Seeman, 1959:786). It is "a sense of the incomprehensibility of social affairs, of events whose dynamics one does not understand and whose future course one cannot predict" (Seeman, 1972a:472). Seeman points out that this dimension of alienation is what Mannheim (1940) saw as a consequence of functional rationalization in modern organization.

3. **Normlessness** refers to "a high expectancy that socially unapproved means are necessary to achieve given goals" (Seeman, 1959:788; 1972a:472);
"the view that one is not bound by conventional standards in the pursuit of what may be, after all, quite conventional goals" (Seeman, 1972a:472). This conception is derived from Durkheim's and Merton's conception of anomie.

4. **Value isolation** refers to "the assignment of low reward value to goals or behavior that are highly valued in the given society" (Seeman, 1959:789; 1972a:473). It is the rejection of commonly-held values in the society. Seeman cites the alienated artist or intellectual who rejects the standards of success or attractiveness as examples of this dimension of alienation.

5. **Self-estrangement** refers to "the degree of dependence of given behavior upon anticipated future rewards, that is, upon rewards that lie outside the activity itself" (Seeman, 1959:790). According to Seeman, "to be self-estranged is to be engaged in activities that are not rewarding in themselves." Seeman cited a case of the worker who is estranged when carrying out unfulfilling and uncreative work as an example. Here Seeman refers to Erich Fromm's work, *The Sane Society* (1955), as the most extensive treatment of this dimension of alienation.

6. **Social isolation** refers to a "low expectancy for inclusion and social acceptance"; it is expressed typically in a feeling of loneliness or a feeling of rejection or repudiation (Seeman, 1972a:473). Seeman points out that this sense of social isolation is what is found among minority members, the aged, the handicapped, and other kinds of "strangers." This dimension was added in his recent article on alienation, "Alienation and Engagement" (Seeman, 1972a).

Since the publication of his seminal 1959 essay, Seeman's work has been highly influential. The number of studies employing various
dimensions of alienation was almost doubled from the four-year period before the publication (1955-1959) to the four-year period after the publication (1960-1964) (Cole and Zuckerman, 1964). The more immediate and obvious influence of Seeman's work could be seen in the research of his colleagues and students during the early 1960s, such as Dwight Dean, Julian Rotter, Arthur Neal, Solomon Rettig, and Pearl Gore. In general, efforts have been given to methodological refinement of the measurement of alienation.

As far as a conceptual aspect of alienation is concerned, the work done by Dwight Dean seems interesting since he reviewed its meaning and categorized it into three dimensions. Even more interesting is his construction of a scale of measuring alienation, now known as "the Dean Alienation Scale," which is one of the most frequently used instruments in alienation research. In his article, "Alienation: Its Meaning and Measurement," Dean conceptualized alienation as having three dimensions (Dean, 1956, 1961). These three dimensions are as follows:

1. **Powerlessness** as Dean defined it is similar to Seeman's concept. It refers to a feeling of "separation" from effective control over one's destiny, a feeling of helplessness, or a feeling of being used for a purpose other than one's own (Dean, 1961:754).

2. **Normlessness** is derived from Durkheim's concept of anomie. But Dean categorizes normlessness into two subtypes. The first subtype is "Purposelessness," derived from MacIver's concept of "anomy", which refers to "the absence of values that might give purpose or direction to life, the loss of intrinsic and socialized values, the insecurity of the hopelessly disoriented" (Dean, 1961:754). The second subtype of normlessness is
referred to as "Conflict of Norms." Work of Karen Horney (1949) is cited as a description of this concept. It should be noted that his scale measures the first subtype only.

3. **Social isolation** is traced from Durkheim's conception of anomie. It refers to "a feeling of separation from the group or of isolation from the group standard" (Dean, 1961:755).

Interestingly enough, his research findings revealed that measures of all dimensions of alienation were related closely, so he regarded them as belonging to the same general concept and as a general syndrome. On the other hand, there appeared to be enough independence among them to be regarded as independent from each other. Therefore, for students of alienation, it seems feasible to conceive dimensions of alienation either as independent from each other or as constituting a general conception of alienation, depending upon personal preference.

In sum, alienation has been conceived by sociologists as a general concept embracing multiple meanings. However, according to Otto and Featherman (1975), there is at least minimal consensus that alienation involves "discordance in the individual's perception of the real and the ideal, 'the world that is' constrained with 'the world that (he feels) should be'" (Otto and Featherman, 1975:172). It is "a negative orientation involving feelings of discordance and cynical beliefs toward a specific social context" (Wegner, 1975:177). This study uses this conceptualization of alienation as a blanket definition. The conception of alienation used in this study is, therefore, social psychologically oriented. It is not defined as an objective phenomenon, which is determined by any departure from an absolute conception of human nature from philosophical standpoints.
such as proposed in Marx's writings or from psychiatric standpoints of "human needs" such as proposed by Fromm (1955) or Etzioni (1968) but as a perceptual state held by the individual toward his immediate social environment.

Social Correlates of Alienation

Although a causal model of sojourner alienation is of major interest in this study, it seems desirable to include an investigation of relationships between social background factors and alienation to have a general description of social correlates of alienation. In this section, the relationships between social background factors and alienation found in literature are briefly reviewed and summarized. Despite contradictory findings, some degree of relationships between the social background variables and alienation have been revealed. Some of such findings are presented below.

In a study of the general population in Columbus, Ohio, Dean (1961) found a positive relationship between age and alienation and a negative association between education and alienation. Green (1968) studied a sample of high schoolers in Upstate, New York, and found that socio-economic status was positively associated with powerlessness and meaninglessness. But Linton (1970) found a negative relationship between these variables.

A study of alienation in college students done by Wiepert (1965) shows that social class is positively associated with alienation, and age and the amount of education are negatively related to alienation. In a longitudinal study of alienation among married women in Toledo, Ohio, Neal and Groat (1974) found that education was one of the best predictors of differential changes in alienation level. Negative relationships between education,
age, and other socio-economic variables were found in a study done by Otto and Featherman (1975). These research findings show that some forms of relationships exist between these socio-economic factors and alienation.

As far as sex is concerned, some degree of association with alienation has been found. Powell (1970) studied alienation among Southern college students and found that males were more alienated than females but found no significant relationship between social class and alienation. However, no significant relationship was found between sex, age, and alienation in a study among college freshmen done by Siegel (1970). Similar results were shown in the study of high school students in Ethiopia done by Desta (1977).

Moore (1976) studied female graduates of 1930-40 and 1950-60 from one Southern college and found that there were significant differences between the alienated and the nonalienated in variables of dwelling types, marital status, and religious affiliation. Peled (1976) also found a significant negative association between religiosity and meaninglessness and a positive relationship between socio-economic status and alienation (misfeasance). A study done by Hajda (1961) indicates that students who are alienated have a slight tendency not to be a member of any organized religion. However, Dean (1968) found no significant relationship between religious participation and social isolation or normlessness but found a significant curvilinear relationship between religious participation and powerlessness. In another study, Dean and Reeves (1962) found, among college women, that Catholics exhibited a significantly lower degree of normlessness than did Protestants. Lee and Clyde (1974), using Dean's scale, showed that, with socio-economic status controlled, Protestants were more normless than Catholics.
Race or ethnicity was also found to be significantly related to alienation. Linton (1970) found that ethnicity contributed to alienation from school among the sample of sixth-grade students. A study of low-income people in seven Southern states done by Hammonds (1963) shows that race is associated with anomia, and Blacks have high anomia. Canary's study of alienation among public school principals reveals that Blacks have higher alienation than Caucasians and Chicanos (Canary, 1977). Finally, in a comparative study among Puerto Rican, Black, and White students, Burbach and Thompson (1971) found that there were significant differences among the three groups on at least one aspect of alienation.

Field of study is another variable found to have some significant relationship with alienation. For instance, in a study done by Kwan (1971), it was found that, among American students, field of study was significantly associated with aspects of alienation. Liberal Arts students were more likely to experience meaninglessness, and Science students were less likely to feel meaningless. But the Liberal Arts students were less likely to feel isolation with others, and Business students were more likely to feel isolation than others. But in a study of alienation among Black students of a Midwestern college conference, Claerbaut (1976) found no significant relationship between field of study and alienation.

With regard to length of residence, Braun (1976) found that people who live in a community for longer periods of time tended to be less alienated. However, Rowe's study reveals that respondents who have high residential mobility tend to have low alienation (Rowe, 1973).

We conclude that social background variables tend to have some degree of relationships with aspects of alienation, though the degree and the
direction of the relationships have not yet been made clear. In this study, some of these social background variables as well as other selected variables expected to be related to alienation are included in the investigation of social correlates of alienation. All variables included in the investigation will be presented in Chapter III.

A Context-Specific Approach

Most sociological investigations have adopted a conceptualization of alienation as a negative orientation of an individual toward the society as a whole. Recently, however, such an approach has been criticized that alienation thus defined represents a "free floating human condition" irrespective of specific contexts which produce such a mental state (Aiken and Hage, 1966:497). An idea of conceptualizing alienation as a context-specific phenomenon was probably suggested first by Dean (1956) in his dissertation and actually done by Clark (1959). According to him, the more rewarding approach to the problem of alienation is the "single unit approach," i.e. by sampling from a well-defined social system. Clark suggests that when viewed from the standpoint of a single specific organization, alienation can be examined in an environment about which there is more adequate information than with the "whole of society" (Clark, 1959: 850-851).

Another general rationale is that society as a whole is not the relevant arena of actions for individuals, since it is doubtful that they often consciously think about the nature of their society; thus they probably do not have a set of stable, well-integrated attitudes toward it. Further,
there is some evidence indicating that alienation in a specific social context does not generalize beyond that situation (Seeman, 1967a).

It seems reasonable to assume that there is differential alienation in a variety of social contexts. Thus, Wegner (1975) concludes that rather than approaching alienation as a global feeling of discontent toward society as a whole, it is more relevant to approach alienation in specific social contexts. Following Clark's suggestion, a handful of alienation studies such as those done by Kwan (1971), Burbach (1972), Holian (1972), Shepard (1973), and Martin et al. (1974) have employed the context-specific approach.

This study thus employs a context-specific approach to sojourner alienation using alienation among foreign students in an American educational setting as a case in point.

Sources of Alienation

In this section some common sources of alienation as revealed in alienation literature will be reviewed. These findings will then be used as a theoretical basis for construction of an exploratory causal model of sojourner alienation. Various relevant theoretical perspectives are examined and synthesized into a new theoretical model to explain and predict sojourner alienation. This strategy has been suggested by Hage (1972).

A review of literature reveals that a discrepancy between self and social system is a source of alienation. A social system is regarded as a social collectivity organized through norms, roles, and facilities and directed toward attaining goals (Sorokin, 1951; Bertrand, 1972). Basic structural units of the social system are norms, roles, and social
positions. Norms provide standards of behavior for a given interactional situation. Role consists of subsets of norms; it is a set of behavioral expectations or evaluative standards of behavior associated with a given position in the social structure.

Under the symbolic interactionist perspective, self may be regarded as a system of more or less integrated roles or patterns of expected behavior felt by an incumbent as appropriate plus his/her assessment of himself/herself as a "social object" (Mead, 1934). Thus, when there is consistency between self and social system integration, conformity, and stability are present. On the other hand, if there is a discrepancy, problems of integration and instability develop. One of the consequences of this incompatibility between self and social system is alienation among individual members within the social system.

There is at least some degree of consensus among sociologists on this aspect regarding sources or antecedents of alienation. For instance, Whyte (1963) proposes that causes of alienation are found in the social positions which an individual occupies in relation to others. Employing "the action frame of reference" perspective of Parsons and Shils, Whyte theorizes that basically alienation occurs where there is a discrepancy between the internalized values of the self and the institutionalized norms of the social system. Such an inconsistency arises where an individual occupies statuses which are discontinuous in terms of associated rights and obligations or where an individual's personal goals are incompatible with what he/she perceives to be the goals of the social system.

A similar argument is made by Barakat (1969). Conceptualizing alienation as a process, Barakat locates sources of alienation at the level of
the social and normative structure, resulting from either states of over-control or over-integration, and/or states of undercontrol or disorganization. He concludes that alienation, at an attitudinal level, "has its roots in the discrepancy for an individual between reality or the world as it is and utopia or the world as desired and as it ought to be" (Barakat, 1969:6).

In a study of youth, Keniston (1969) argues that one of the reasons for the study of alienation is that it comes about because of the gap, a "felt" discrepancy between what is and what is believed to be important, desirable, and possible. In other words, it is "the gap between aspiration and activities as one of the chief sources of alienation" (Keniston, 1969:25).

Other sociologists who also have a similar theoretical argument are such as Clark (1959) who conceives alienation as resulting from a discrepancy between an individual's definition of the role he/she is playing and the one he/she feels he/she should be playing in a social situation.

Wegner (1975) is another sociologist who theorizes that alienation results when there are some imcompatibilities between an individual's social roles or the social context and his/her personal characteristics such as self-image, values, goals, and needs. Finally, Parsons (1951), in his discussion of "secondary alienation," contends that this type of alienation results from the discrepancy between social role and individual need-disposition.

Based upon the theoretical argument above, it is concluded that the self-social system discrepancies are the main sources of alienation. The theoretical rationale for this conclusion are presented below.
Theoretically, there is always some degree of discrepancy between the self and the social system. According to Parsons (1951), successful socialization is crucial because it is "the principal common denominator between personality as a system and the role structure of the social system" (Parsons, 1951:233). Alienation is always a possible product of something going wrong in socialization process. However, a "stress-strain" element is a component of the social system (Bertrand, 1963). Socialization has never been perfect, and it does not equally affect each individual member. Further, there is always some degree of lack of specification on role expectations. A sojourner, assuming that he/she is culturally and socially foreign to the host social system, is likely to have a high degree of undersocialization. Accordingly, undersocialization is hypothesized to be one causal factor of sojourner alienation.

In addition, there are external factors affecting such a presumed discrepancy. Conceiving the social system as an open-system, in a process of input-output exchange, individual members of the social system have been exposed to different frames of reference or perspectives from outside. Some of these perspectives or frame of reference might be internalized and may thus create further inconsistency between the self and the social system.

Mead sheds light on another aspect of the self-social system discrepancy in his discussion of the "me" as a component of the self. According to Natanson (1956), Mead uses the "me" in two aspects: 1) as the organized set of attitudes of others (roles) which the individual assumes; and 2) as the totality of the content of the past actions and thoughts of the individual which is constantly added to through human experience. A sojourner
has spent most of his/her life in his/her original social system. Before moving to the host social system, he/she has already become committed to the values or frame of reference of his/her original social system. His/her past experiences thus further widen the discrepancy between his/her self and the host social system, assuming that the committed values or frames of reference are different from those of the host society. To put it more specifically, the greater the difference between the two frames of reference, the wider the discrepancy.

In the role perspective, the discrepancy between the self and the social system can be regarded as an aspect of role conflict, since social organization is a process of role relationships (Bertrand, 1972; Olsen, 1968). There may be conflict between how an individual expects to act toward others and/or to receive from others and what others expect of him/her. In a case of a sojourner, it is conflict between behavioral expectations he/she perceives as legitimate, valuable, and practicable from his/her past experiences and a set of behavioral expectations the host social system expects of him/her.

It should be noted that there are two aspects of the self-social discrepancy: an "objective" discrepancy and a "subjective" discrepancy. It is the second aspect, which can be called a "perceived" self-social discrepancy, that is crucial for the transition from a structural (objective) discrepancy to an attitudinal level of discrepancy. The discrepancy must be perceived and evaluated by an individual sojourner. Accordingly, the degree of discrepancy of the objective and the subjective one are not necessarily the same. It is even possible that the "felt" discrepancy is higher than it is in "actuality." Furthermore, the degree of the felt
discrepancy may vary among individual sojourners despite being within the same host social system and even coming from the same original social system, due to differences in their past experiences, perceptions, and evaluations. In this study, this subjective or perceived discrepancy is of major interest as a source of sojourner alienation.

An Exploratory Causal Model of Sojourner Alienation

The current state of alienation research seems to be characterized by a concentration on correlational analyses of social background factors and alienation. This has to be improved. According to Seeman (1972a), since it is not likely that the experimental laboratory will be feasible for sociological research, the improvement must be sought through refinements applicable to data derived from natural settings by the use of procedures such as path analysis for making causal inferences from nonexperimental designs or by the use of quasi-experimental designs in natural settings.

For this purpose we shall attempt to construct an exploratory or hypothetical causal model of sojourner alienation. The causal model will enable us to utilize path analysis in this research.

The objective of path analysis is to compare the causal model to observed data in the study in order to examine the fit of the model to the data. If the fit is close, the model is retained, but if it is not close, the model will be modified and then be subjected to further tests. Path analysis thus provides a very pertinent way to relate theory and empirical data for the explanation of social phenomena (Loether and Mctavish, 1974). Path analysis has many advantages over other kinds of statistical analyses. First of all, variables may have complex relationships with each other, and
path analysis attempts to measure and describe these networks. Further, path analysis examines both direct and indirect causal relationships among variables. Therefore, path analysis provides more information than other procedures about the nature and the relationships among variables (Mulford et al., 1971a).

However, due to the lack of research on sojourner alienation, this exploratory causal model is based upon a purely theoretical rationale. This research is aimed at initiating a new approach to theory and research on sojourner alienation. In this attempt, a backward formulation is employed in the development of general hypotheses and the causal model. This procedure starts with the dependent variable (here, alienation) in the model and works backward to antecedent variables. We will now define the dependent variable, alienation.

**Alienation**

The concept of alienation has been regarded by sociologists as a syndrome (Dean, 1961) and multidimensional (Seeman, 1959, 1972a). Four dimensions of alienation believed relevant to sojourner alienation are included in this model. Definitions are adapted from Seeman (1959, 1972a).

*Powerlessness* is defined as the degree of expectancy held by a sojourner that his/her own behavior cannot determine the occurrence of the outcomes he/she seeks.

*Normlessness* is defined as the degree of expectancy held by a sojourner that socially unapproved behaviors are required to achieve given goals. It is the perception that he/she is not bound by any conventional standards or rules in the pursuit of conventional goals.
Meaninglessness is defined as the degree of expectancy held by a sojourner that satisfactory predictions about outcomes of behavior cannot be made. It is a sense of incomprehensibility of social objects or general social environment whose dynamic and future course he/she does not understand and cannot predict.

Social isolation is defined as the degree of expectancy held by a sojourner for social exclusion and rejection. It is typically expressed in feelings of loneliness, rejection, or repudiation.

We turn now to antecedent variables in the causal model.

Role conflict

From theory, we hypothesize that one main antecedent variable in a causal relationship with alienation is role conflict. Role conflict is defined as a perceived discrepancy between "perceived role" and "preferred role." Perceived role is a set of behavioral expectations or evaluative standards of behavior perceived by an occupant of a given position as defined by "significant others" (Kuhn, 1964; Denzin, 1966) in the social system (here, the host social system). Preferred role is a set of behavioral expectations or evaluative standards of behavior an occupant of a given position and/or significant others of his/her original social system, here believed to be appropriate and legitimate for such a position.

It is hypothesized that a sojourner who experiences role conflict is likely to feel alienated from the host social system. Figure 2a illustrates a causal linkage between role conflict and alienation.
In order to participate in social interaction, one has to be able to predict the behavior of persons, assuming that he/she is familiar with the specific role and that the person is conforming or adjusting to these normative expectations. According to Goode (1960), role conflict may lead to "role strain," a felt inability to perform a perceived role. To put it in another way, a sojourner with role strain is the one who fails in "role adjustment" (Schiller and Leik, 1963). Role adjustment is a process whereby an individual alters his/her role performance in terms of the demands of a social situation or of significant others (Mead, 1934:155-159). The intensity and scope of role conflict therefore affects the role adjustment of a sojourner. It is hypothesized that a sojourner with more role conflict will tend to have lower role adjustment.

It is also hypothesized that a sojourner who fails in role adjustment will feel alienated from the host social system. Because he/she cannot manipulate his/her course of "impression management" (Goffman, 1959) in social interaction, he/she will feel powerless. Since he/she cannot perform the perceived role in order to achieve desired goals, he/she will feel normless. And because of his/her failure to see social objects through the perspective of significant others or generalized others of his/her host social system, the pattern of role relationships within the host social system will be perceived as meaningless. Finally, since a sojourner fails
to perform perceived role, he/she will feel rejected and excluded from the host social system. Figure 2b illustrates the hypothesized causal linkages among role conflict, role adjustment, and alienation.

Figure 2b. Causal linkages among role conflict, role adjustment, and alienation

Socialization

Socialization is another hypothesized variable in determining sojourner alienation. The term has been used as a catch-all construct that assumes an ever-expanding, generic meaning; its fundamental reference seems to be any aspect of human learning or human development. However, in sociology, a typical conception of socialization is as "the transmission of social knowledge considered essential for the occupancy of social position and the implementation of corresponding roles" (Direnzo, 1977:264). To be more specific, it is a process whereby a sojourner "acquires the personal system properties—the knowledge, skills, attitudes, values, needs and motivations, cognitive, affective, and conative patterns—which shape (his/her) adaptation to the physical and socio-cultural setting in which (he/she) lives" (Inkeles, 1969a:615-616).
Shifting from one's own familiar social system to a new and different one puts quite a substantial strain on the individual sojourner, since patterns of expected behavior from the repertoire of his/her self are no longer practicable or at least somewhat ineffective. A sojourner may find himself/herself inadequately socialized to the demands of the role he/she is now called to perform. Late socialization and other forms of re-socialization may be required. Undersocialization may therefore make a sojourner feel dislocated, unfit, or inadequately prepared for the tasks facing him/her in the position he/she has acquired or to which he/she has been assigned in the host social system.

In other words, an undersocialized sojourner experiences some degree of "role ambiguity" (Kahn et al., 1964; Rizzo et al., 1970). It involves a lack of necessary information regarding a given position or lack of clarity of the appropriate behavioral expectations for a given position. This experience may in turn make a sojourner feel alienated from the host social system. Therefore, it is hypothesized that socialization is causally related to sojourner alienation.

Looked at in another way, it may be asserted that re-socialization is a prerequisite of role adjustment. Before a sojourner is able to adjust his/her role in the host social system, he/she must have "role taking accuracy" (Stryker, 1957). Only through "role taking"--putting oneself in the place of others to see things as they see them--can a sojourner achieve role taking accuracy and to adjust his/her role accordingly. Socialization is acquired in the process of role taking. Socialization is thus causally related to role adjustment; the more the socialization, the more the role
adjustment. Figure 2c shows the hypothesized linkages among the variables discussed above.

![Diagram of causal linkages among four variables]

Socialization → Role adjustment → Alienation

Role conflict

Figure 2c. Causal linkages among four variables

**Social participation**

In alienation literature, social participation has been emphasized as one of the key antecedents of alienation. This probably comes from the "mass society" perspective and involves an assumption that dramatic social change (e.g. modernization and industrialization) results in disorganization or a low degree of social integration within social system. This chaotic social situation makes an individual feel disoriented, atomized, or alienated from the social system (Walter, 1964; Seeman, 1972a). Social participation as an index of social integration is regarded as having a negative causal relationship with alienation.

It is also hypothesized that social participation is causally related to socialization, since socialization is partly acquired in a process of social interaction, i.e. the more a sojourner participates in social interaction with others of the host social system, the more the socialization.
Finally, it is also hypothesized that the greater the social participation of a sojourner, the higher the degree of his/her role adjustment in the host social system. Figure 2d presents the hypothesized causal linkages among the above variables.

![Diagram of causal linkages among the five variables]

Figure 2d. Causal linkages among the five variables

**Modernity**

According to Smith and Inkeles (1966), modernity is a syndrome or a set of attitudes, values, and ways of feeling and acting required for effective participation in a modern society. Central to this syndrome are: a) openness to new experiences; b) the assertion of increasing independence from the authority of traditional figure; c) belief in the efficacy of science and medicine and a general abandonment of passivity and fatalism in the face of life's difficulties; d) ambition of one's self and one's children to achieve high occupational and educational goals; e) liking people to be on time and showing an interest in carefully planning affairs in advance; f) strong interest and taking an active part in civic and community affairs and local politics; and g) striving to keep up with news and
preferring national and international news over sport, religion, or local news (Inkeles, 1969b:210). In short, modernity is "a syndrome of attitudes and beliefs, including progressivism, secularity, optimism, future-oriented perspective, and a sense of personal efficacy" (Gough, 1976:3).

In this study, however, modernity is defined as a set of attitudes and values including change orientation, secularism, personal efficacy, planning or future orientation, openness to new experiences, role equality, and keeping up with news. A modern social system is characterized by economic growth, public involvement in setting of objectives, diffusion of secular-rational norms, relative freedom of mobility, orientation toward future experiences and goals, and emphasis on achievement, autonomy, and the enhancement of individual potential.

Assuming that the host social system is characterized by these modern components, the relative modernity of a sojourner will lessen the self-social system discrepancy. It is thus hypothesized that modernity is causally related to sojourner alienation; the higher the modernity of a sojourner, the lower the alienation. Modernity is also expected to have a negative causal relationship with role conflict, i.e. the higher the modernity, the lower the role conflict or vice versa. In addition, modernity is hypothesized to be positively related to role adjustment, i.e. the higher the modernity of a sojourner, the higher the role adjustment. Finally, modernity is probably correlated with social participation, since by definition modern man is likely to participate in social participation.

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1This assumption seems justified by the fact that sojourner migration is generally characterized by movement of people from less modernized to more modernized countries.
Figure 2e shows the hypothesized antecedents of sojourner alienation with modernity included.

![Diagram showing causal linkages among six variables]

**Figure 2e. Causal linkages among six variables**

**Length of sojourn**

Length of sojourn is the last antecedent variable included in the model. Theoretically, a new member of a social system will be socialized into normative standards and the value orientation of the social system to enable him/her to be competent for his/her role in such a system. Upon entering the host social system, a sojourner will be expected to be socialized to be a competent member of the social system. Longer stay in the host social system means more opportunities for an individual sojourner to be exposed to and thus socialized into the norms and values of the host social system. It is, therefore, logical to hypothesize that length of sojourn in the host social system affects the degree of socialization of a sojourner; the longer the length of sojourn, the higher the socialization.
It is also hypothesized that length of sojourn is causally related to role adjustment and alienation. If there is a longer length of sojourn, then there will be higher role adjustment. And if there is longer length of sojourn, then there will be lower alienation. Figure 2f presents a complete causal model of sojourner alienation.

Figure 2f. Causal model of sojourner alienation

A Summary of General Hypotheses

Although the causal model of sojourner alienation was constructed to examine interrelationships among variables; their interactional or combined effects upon the dependent variable, alienation, it seems interesting to examine "one-to-one" relationships among the variables in the causal model. General two-variable hypotheses for testing such relationships are summarized below.
G.H. 1: There is a negative relationship between role adjustment and alienation; if the role adjustment is high, then the alienation will be low.

G.H. 2: There is a positive relationship between role conflict and alienation; if the role conflict is high, then the alienation will be high.

G.H. 3: There is a negative relationship between role conflict and role adjustment; if the role conflict is high, then the role adjustment will be low.

G.H. 4: There is a negative relationship between socialization and alienation; if the socialization is high, then the alienation will be low.

G.H. 5: There is a positive relationship between socialization and role adjustment; if the socialization is high, then the role adjustment will be high.

G.H. 6: There is a negative relationship between social participation and alienation; if the social participation is high, then the alienation will be low.

G.H. 7: There is a positive relationship between social participation and role adjustment; if the social participation is high, then the role adjustment will be high.

G.H. 8: There is a positive relationship between social participation and socialization; if the social participation is high, then the socialization will be high.
G.H. 9: There is a negative relationship between modernity and alienation; if the modernity is high, then the alienation will be low.

G.H. 10: There is a positive relationship between modernity and role adjustment; if the modernity is high, then the role adjustment will be high.

G.H. 11: There is a negative relationship between modernity and role conflict; if the modernity is high, then the role conflict will be low.

G.H. 12: There is a negative relationship between length of sojourn and alienation; if the length of sojourn is long, then the alienation will be low.

G.H. 13: There is a positive relationship between length of sojourn and role adjustment; if the length of sojourn is long, then the role adjustment will be high.

G.H. 14: There is a positive relationship between length of sojourn and socialization; if the length of sojourn is long, then the socialization will be high.
CHAPTER III. METHODOLOGY

In Chapter II the theoretical framework, the exploratory causal model of sojourner alienation, and the general hypotheses were discussed and formulated at a highly abstract level. In this chapter, methodological procedures for an investigation at an empirical level are discussed. The procedures are described in five sections: (1) population and the sample; (2) a method of data collection; (3) operationalization and measurement; (4) empirical hypotheses, and (5) methods of statistical analysis.

Population and the Sample

In this study, the empirical population was the foreign student body at Iowa State University, Ames, Iowa. As of fall, 1978, there was an enrollment of about 1,250 foreign students, comprising over 5 percent of the total student population. Over 36 percent of the foreign students came from Far East Asia, about 30 percent from Middle East Asia, 16 percent came from Africa, about 12 percent came from Latin America, and the rest of the foreign students came from Europe, North America, the South Pacific, and the Caribbean.

The author was granted access to a computerized list of all foreign students enrolled at ISU for fall quarter, 1978, by International Educational Services. The sample, constituting about 30 percent of the total foreign student population, was systematically drawn from the seven largest national groups. These seven groups were: Hong Kong, India, Iran, Republic of China, Nigeria, Thailand, and Venezuela. In order to have an adequate access to each group, the sample pool was selected employing a disproportionate stratified technique. A sample of 39 to 55 was randomly
drawn from each group except for national groups having a population of less than 55, where the total population was used as a sample. These national groups were from India, Thailand, and Venezuela. The total sample was 356.

A Method of Data Collection

Data for the study were obtained by the use of self-administered questionnaires. The questionnaire was constructed especially for this study by the author (see Appendix B). It was composed both of scales adapted from established works (to make them more suitable for the sample under study) and a number of original items and/or scales. The questionnaire was comprised of eight types of items: (1) items designed to provide general, social, and demographic information and other information relevant to the purpose of this study; (2) items designed to measure alienation and its components; (3) items designed to measure role adjustment; (4) items designed to measure role conflict; (5) items designed to measure socialization; (6) items designed to measure social participation; (7) items designed to measure modernity; and (8) an item designed to measure length of sojourn. Operationalization and measurement of these variables will be discussed later in this chapter. Items regarding socio-economic and demographic background were placed at the very end of the questionnaire, assuming that these are personal or more sensitive questions which some potential respondents might tend to hesitate to respond.

Thus, if some respondents should refuse to answer these questions, it would have less effect upon the study since they would already have provided information on matters of main concern to this study. As a matter of fact,
it was found in the coding process that many respondents did indeed neglect to respond to the personal questions at the end of the questionnaire.

In addition, procedures believed to make it easy for respondents to reveal presumably undesirable attitudes were employed as suggested by Cook and Selltiz (1964). A list of the procedures follows: (1) assurances of anonymity; (2) emphasizing that there are no right or wrong answers; (3) stating that people differ in their views on these things; (4) stating the importance of honest answers in order to contribute to scientific knowledge; (5) increasing rapport so as to create the impression that the investigator will not disapprove of any answer; (6) including items to which an unfavorable reply is likely to be considered acceptable; and (7) wording items in such a way that they assume that the subject holds certain attitudes or views. In this study, the procedures 1 to 4 were employed in either the letter to the respondents or the questionnaire (see Appendix A for the letter to the respondent and Appendix B for the questionnaire).

There were several steps in the construction of the questionnaire. The first draft of the questionnaire was discussed with foreign graduate students in sociology as well as with the major professor. Modified questionnaires were then presented to new foreign students enrolled in an English language class in February, 1979. The students took the questionnaires home and filled them out. They were encouraged to write their reactions especially about the clarity of the items. Further modifications were made concerning wording of the items to ensure that they would be understood by respondents who were drawn as the sample. It should be noted that this is a special case for questionnaire construction, since potential
respondents have a wide range of competence in the English language. It was very difficult to construct the questionnaire to be clear to all. Attached to the questionnaire was a letter explaining the general purpose of the study and the procedure for completing the questionnaire.

The questionnaires were distributed to the sample either by mail or by personal contact in the period of March 16 to March 20, 1979. To induce high response rate as well as for economic reasons, about 50 percent of the total questionnaires were distributed door-to-door by personal contacts to those who resided in university apartments and the graduate student residence hall. The respondents were contacted three times, mostly by personal contacts. The other half were mailed. Follow-up letters were sent in about a week to ten days (alienation did not differ, see Table 4.1m, p. 89).

Of the 356 questionnaires sent or delivered, 181 were returned. This represents a response rate of 50.84 percent. A total of four questionnaires were eliminated from the analysis because they were incomplete. Distribution of the respondents by native country is presented in Table 3.1.

The sample from Thailand had the highest number of responses of questionnaires (37) while the sample from Venezuela had the lowest, only ten questionnaires being returned (under the assumption that "others" and "no answer" responses were equally distributed across nationalities). It is interesting to note that eight respondents identified as their country of origin nations that were not included in the study. This may be due to an attempt among the respondents to disguise their identity, assuming that the records from International Student Services were accurate.
Table 3.1. Distribution of the sample

<table>
<thead>
<tr>
<th>Country</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>27</td>
<td>15.25</td>
</tr>
<tr>
<td>India</td>
<td>11</td>
<td>6.21</td>
</tr>
<tr>
<td>Iran</td>
<td>17</td>
<td>9.61</td>
</tr>
<tr>
<td>Nigeria</td>
<td>23</td>
<td>13.00</td>
</tr>
<tr>
<td>Republic of China</td>
<td>31</td>
<td>17.51</td>
</tr>
<tr>
<td>Thailand</td>
<td>37</td>
<td>20.90</td>
</tr>
<tr>
<td>Venezuela</td>
<td>10</td>
<td>5.65</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>4.52</td>
</tr>
<tr>
<td>No answer</td>
<td>13</td>
<td>7.35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>177</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

As far as methods of distribution of questionnaires are concerned, as expected it was found that the personal-contact method induced higher response rate than the mailing method, as 110 or 60.34 percent of the total 179 questionnaires were returned whereas only 71 or 38.98 percent of the total 177 questionnaires distributed by mail were returned.

The response rate of 50 percent is poor, considering various attempts made to obtain a high response rate. From comments in some returned questionnaires, calls from respondents, and conversation with some respondents, the author has gained an impression that the rather low response rate in this study is probably due to many factors. Some of these factors may be described as follows:

First, some respondents tended to feel that they had been cheated by some researchers of other studies. For instance, while promising anonymity, some researchers in the past placed identifiers on a part of the questionnaire or on the return envelope. Some respondents recognized this and
made them distrust any other research projects since they believed that their responses could be identified at any time.

Second, there were many research projects which used foreign student samples during the academic year 1978-1979. No doubt some grew tired of filling out questionnaires.

Third, some national groups believed that they were under surveillance of some sort. They were afraid that their responses about attitudes toward Americans and the American community might be made known, since they didn't believe that their responses were anonymous.

Finally, foreign students in general have to spend most of their time coping with academic problems—probably the most crucial aspect of their lives—a culture that is "foreign" to them. Some might have felt that they had no time to spare for extraneous matters.

Operationalization and Measurement

In this section the variables in this study are operationalized and measured. A discussion of the reliability and validity of the various scales is included with the description of operationalization and measurement of the variables in the causal model.

Social background variables

A total of 15 questions were included in the questionnaire to provide information about the socio-economic and demographic characteristics of the respondents. (See Appendix B for complete questionnaire.)

Item 70 asked the respondent to provide information about the most prominent source of knowledge concerning proper ways of behaving in an
American college community. A fixed-choice item was used. The respondent was asked: What is the most prominent source of {this} knowledge?

- American friends and acquaintances
- Friends from your own country
- "Teach-it-yourself"
- Orientation programs or other direct sources from university
- Other (please specify..................)

This item was aimed at revealing prominent sources of socialization other than through social participation with Americans (Watson and Lippitt, 1955).

Item 71 was aimed at determining perceived communication ability of the respondent. The item asked: How would you rate your ability to express yourself in the English language?:

- Very poor
- Poor
- Average
- Good
- Excellent

Item 72 was designed to measure the economic status of the respondent: How would you rate your financial situation here?:

- Very inadequate
- Somewhat inadequate
- Somewhat adequate
- Adequate
- Very adequate

The next four items (questions 73-75) solicited information about the social status of the respondent. Item 73 measured a perceived social status of the respondent while living in the American community: "Based on a scale of 10, comparing your social status with other people here, how would you locate your social status in this college community?:"

Low .1 .2 .3 .4 .5 .6 .7 .8 .9 .10 . High
Item 74 measured perceived status change of the respondent while living in American community: Comparing your social status when in your home country, how much change in your social status has come about when living here in this college community?:

- Much lower
- Somewhat lower
- Roughly the same
- Somewhat higher
- Much higher

Item 75 was assigned to measure social status of respondent's parents, asking: "Based on a scale of 10, what would you say was the social status of your family in your home community when you were growing up?:

Low 1 2 3 4 5 6 7 8 9 10 High

The next two questions (items 76-77) asked the respondent to indicate his/her sex and marital status.

Questions 78-79 dealt with religious aspect. Item 78 asked, "What is your religion?:

- Catholic
- Protestant
- Buddhism
- Islam
- Hinduism
- Other (please specify..................)
- No religion

Question 79 was assigned to measure religiosity (in contrast to formal membership), to reveal the influence or impact of religion upon the respondent's life, asking: "How does religion influence your life?:

- Very little
- Little
- Much
- Very much
Item 80 was designed to elicit information about the type of residence of the respondent, asking: "What is the type of your residence?:"

- Dormitory
- University apartment
- Private apartment
- Other (please specify)

Question 81 asked about class standing of the respondent:

- Underclassperson
- Upperclassperson
- M.A. or M.S. student
- Ph.D. student

Questions 82-85 were designed to provide information about age, major field of study, country of origin, and type of visa of the respondent, respectively.

Variables in the causal model

Since all variables, except length of sojourn, were measured by composite scales, it seems necessary to describe and discuss various aspects of reliability and validity of the indicators. Since these matters are crucial, we will discuss reliability and validity at length using the role conflict variable as an example. Following this presentation, the operationalization and measurement of the other variables in the causal model will follow.

Reliability and validity  It is commonly recognized that scores of indicators usually reflect not only the characteristic which the indicator is attempting to measure but also a variety of errors. According to Selltiz et al. (1959), if a research instrument is plagued by variable errors, the likelihood of achieving significant results is minimized.
Rather than proceed with unreliable instruments, it would be prudent to delay the research and try to increase the quality of the instruments.

Warren et al. (1977) suggest that one way to assess the quality of an indicator or instrument is to examine its functional unity. Functional unity is "the degree of consistency that exists among the various measures. . . . If the measures of an indicator really reflect the same concept then they should be consistent or 'hang together'" (Warren et al., 1977:50). One way of assessing the consistency of a measure or instrument is to examine the intercorrelations of the measure, the average intercorrelation, and item-total correlations. Examining the intercorrelations enables one to see the degree of similarity between items: the item-to-total correlation can be compared to a minimum item-to-total \((r_{it} = \frac{1}{n})\) which represents the amount of variance which is contributed by chance.

This study adopted this technique to examine the functional unity of the indicator. In order to avoid repetition, examination of only one scale (role conflict) will be presented. Tables 3.2a, 3.2b, and 3.2c present the results of examining the role conflict scale.

Table 3.2a. Intercorrelations of original role conflict scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Item 37</th>
<th>Item 38</th>
<th>Item 39</th>
<th>Item 40</th>
<th>Item 41</th>
<th>Item 42</th>
<th>Item 43</th>
<th>Item 44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 37</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 38</td>
<td>.5457</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 39</td>
<td>.3834</td>
<td>.2544</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 40</td>
<td>.3755</td>
<td>.4397</td>
<td>.2617</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 41</td>
<td>.4277</td>
<td>.3431</td>
<td>.2714</td>
<td>.3801</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 42</td>
<td>.4104</td>
<td>.4332</td>
<td>.2461</td>
<td>.3456</td>
<td>.6314</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 43</td>
<td>.5001</td>
<td>.4991</td>
<td>.2271</td>
<td>.4158</td>
<td>.5903</td>
<td>.6317</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Item 44</td>
<td>.2280</td>
<td>.2562</td>
<td>.1973</td>
<td>.0972</td>
<td>.1034</td>
<td>.1360</td>
<td>.1357</td>
<td>1.0000</td>
</tr>
</tbody>
</table>
Table 3.2b. Corrected item-total correlations (original scale)

<table>
<thead>
<tr>
<th>Item</th>
<th>( r_{it} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 37</td>
<td>0.6285</td>
</tr>
<tr>
<td>Item 38</td>
<td>0.6062</td>
</tr>
<tr>
<td>Item 39</td>
<td>0.3854</td>
</tr>
<tr>
<td>Item 40</td>
<td>0.4965</td>
</tr>
<tr>
<td>Item 41</td>
<td>0.6047</td>
</tr>
<tr>
<td>Item 42</td>
<td>0.6256</td>
</tr>
<tr>
<td>Item 43</td>
<td>0.6691</td>
</tr>
<tr>
<td>Item 44</td>
<td>0.2334</td>
</tr>
</tbody>
</table>

Original scale
\( \text{min } r_{it} = .354 \)

Table 3.2c. Corrected item-total correlations (revised scale)

<table>
<thead>
<tr>
<th>Item</th>
<th>( r_{it} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 37</td>
<td>0.6091</td>
</tr>
<tr>
<td>Item 38</td>
<td>0.5944</td>
</tr>
<tr>
<td>Item 39</td>
<td>0.3753</td>
</tr>
<tr>
<td>Item 40</td>
<td>0.5133</td>
</tr>
<tr>
<td>Item 41</td>
<td>0.6301</td>
</tr>
<tr>
<td>Item 42</td>
<td>0.6447</td>
</tr>
<tr>
<td>Item 43</td>
<td>0.6913</td>
</tr>
</tbody>
</table>

Revised scale
\( \text{min } r_{it} = .378 \)

Considering Table 3.2a, it is obvious that Item 44 is significantly different from other items. Its largest intercorrelation with other items is 0.2562, and most of the intercorrelations are only at the level of 0.10. And from Table 3.2b, item-total correlation for Item 44 is only 0.2334, whereas most other items are at the .60s level. The minimum \( r_{it} \) of 0.354
means that Item 44 contributes to the scale less than one would expect by pure chance.

Methodologically, Item 44 seems to be inconsistent with the rest of the items in the scale. Considering this aspect alone, this item should be dropped from the scale. However, one should also consider the theoretical aspect of this item before finally decided to drop it. As far as the theoretical aspect is concerned, Item 44 ("Despite associating with different groups of people, their expectations of me are always the same") was designed to measure the basically same idea as Item 40 ("I receive incompatible expectations from different groups of people"). Thus dropping Item 44 would not affect the theoretical aspect at all. It seems that the inconsistency of Item 44 with other items is purely methodological, e.g. inconsistency of responses or lack of clarity of the item.

Considering both methodological and theoretical aspects, therefore, it was decided to drop Item 44 from the role conflict scale in order to increase its functional unity. Table 3.2c shows the result of the item-total correlations when using a revised seven-item role conflict scale. The minimum $r_{it}$ for the seven items is .378. All items but one fall above the minimum for the seven-item scale. The average inter-item correlation for the revised scale is .4113 as compared to only .3488 for the original scale. Thus it was assumed that the revised scale was a more accurate reflection of the concept than the original one.

There is another less complicated way to assess the quality of an indicator. This can be done by simple item-analysis as suggested by Edwards (1957) and Selltiz et al. (1959). Under this method, we considered frequency distribution of scores based upon responses to all statements in
the scale. We then took two extreme groups, i.e. the top and the bottom 25 percent, assuming that these two groups provided criterion groups in terms of which to evaluate the individual statements in the scale. The responses of the high and the low groups to each statement or item in the scale were evaluated by a t-test (Edwards, 1957:152). The value of t is a measure of the extent to which a given item differentiates between the high and the low groups. Only those statements which have statistically significant t values are retained.

The even simpler method is to examine discriminatory power of items (Selltiz et al., 1959:184-186). This is done by comparing differences between mean scores of the high and the low groups on each item. Items showing inadequate discriminatory power are dropped from the scale. Table 3.3 presents results of item analysis for the role conflict scale employing the above method.

Table 3.3. Role conflict scale: Mean scores, discriminatory power, and t-values

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean score</th>
<th>Discriminatory power</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High group</td>
<td>Low group</td>
<td></td>
</tr>
<tr>
<td>Item 37</td>
<td>3.8367</td>
<td>1.8372</td>
<td>2.00</td>
</tr>
<tr>
<td>Item 38</td>
<td>3.8367</td>
<td>2.1628</td>
<td>1.68</td>
</tr>
<tr>
<td>Item 39</td>
<td>3.4490</td>
<td>2.0465</td>
<td>1.40</td>
</tr>
<tr>
<td>Item 40</td>
<td>3.8980</td>
<td>2.3721</td>
<td>1.53</td>
</tr>
<tr>
<td>Item 41</td>
<td>3.6735</td>
<td>1.8837</td>
<td>1.79</td>
</tr>
<tr>
<td>Item 42</td>
<td>3.8163</td>
<td>1.8605</td>
<td>1.96</td>
</tr>
<tr>
<td>Item 43</td>
<td>3.9592</td>
<td>2.0000</td>
<td>1.96</td>
</tr>
<tr>
<td>Item 44</td>
<td>3.6327</td>
<td>2.7907</td>
<td>0.84</td>
</tr>
</tbody>
</table>
Considering Table 3.2, it is obvious that Item 44 has lowest t-value (although in this case it is significant); its discriminatory power is significantly different from the rest of the items in the scale. Item 44 should be dropped from the revised scale. Interestingly enough, the results are consistent with the previous method.

This study employed both methods to assess functional unity of the scales in the causal model and in general found that both methods generated consistent results. It should be noted again that this study took both methodological and theoretical aspects into account in considering the functional unity of each scale, i.e. the decision to retain or to drop any item was based on both criteria.

As far as reliability of the scales is concerned, this study employed the internal consistency approach because it is considered most appropriate for sociological studies which are generally cross-sectional rather than longitudinal.

Traditionally the corrected split-half reliability test has been employed. Most recently, however, it has been argued that if all items in the test are intended to measure the same characteristic, random rather than equivalent halves should be compared. Accordingly, a new method of computing a coefficient of equivalence or internal consistency has come into use.

According to Warren et al. (1977), this approach examines the covariance among all items simultaneously, rather than by an arbitrary split. The most popular internal consistency test was developed by Cronbach (1951) and is referred to as coefficient alpha (\(\alpha\)). Warren et al. (1977) defines coefficient alpha as:
\[
\alpha = \frac{n}{n-1} \left[ 1 - \frac{\sum \sigma_i^2}{\sigma_x^2} \right]
\]

Where \( \sum \sigma_i^2 \) = sum of the individual variances
\( \sigma_x^2 \) = variance of the total scale

\[
\sigma_x^2 = \sum \sigma_i^2 + 2 \sum \sigma_{ij}
\]

\( n \) = number of items in the scale

This study employed coefficient alpha as a test of reliability of all scales in the causal model.

In addition, a form of criterion-related validity (Bohrnstedt, 1969) test was employed. According to Bohrnstedt, one should always check not only the validity of the total score by correlating it with available criteria but also should inspect the correlation of each item with the criteria. To check the dimensionality of the items in the scale, one should verify that each item correlates roughly at the same level with the criteria. For instance, if some items correlate highly with the criteria and the others near zero, it suggests that more than a single dimension is represented in the scale.

However, for most measures external criteria are not available. Thus Bohrnstedt (1969) suggests, "Where no outside criteria are available, the total score itself can be used as a criterion" (p. 543). This means that item-to-total correlations can be employed to evaluate criterion validity of the items. However, as Lord and Novick (1968) have pointed out, the total score is contaminated by the item itself. One thus needs to look at the item-to-total correlation with the item removed from the total score.
This study used the above method as means of assessing criterion-related validity of items for each scale.

Considering item-total correlations for the role conflict scale, we found that most items were correlated with the total score roughly at a level of .60s, except for Items 39 and 40. However, the differences were not significant. It may thus conclude that in general the role conflict scale has a significant degree of criterion-related validity.

The above procedures for assessing the functional unity, the reliability, and the criterion-related validity were employed for each of the scales measuring the variables in the causal model. As a matter of parsimony, we will briefly discuss the operationalization and measurement of each variable and then present only a brief summary of the analyses, mostly in the form of tables. The operationalization and measurement of each variable are presented below.

Powerlessness refers, in this study, to the degree of expectancy held by a foreign student that his/her own behavior cannot determine the occurrence of the outcomes he/she seeks. This concept was measured by a seven-item Likert-type Powerlessness Scale. The scale items were adapted from Burbach (1972), Holian (1972), Dean (1961). Theoretically, the distribution of the total score could range from 7 to 35. The calculated scores for powerlessness ranged from 12 to 35 with a mean of 22.12 and a standard deviation of 4.30.

Following item analysis, one item was dropped from the scale (Item 20):

"There is much that foreign students can actually do to improve their welfare in this university."
The revised scale had scores which ranged from 10 to 30, with a mean of 19.22 and standard deviation of 4.04, a mean inter-item correlation of .26, and a reliability coefficient of .67. As a measure of criterion-related validity, Table 3.4a presents corrected item-total correlations of the revised scale.

Table 3.4a. Corrected item-total correlations of the revised Powerlessness Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>.2997</td>
</tr>
<tr>
<td>Item 4</td>
<td>.4116</td>
</tr>
<tr>
<td>Item 8</td>
<td>.4320</td>
</tr>
<tr>
<td>Item 10</td>
<td>.4650</td>
</tr>
<tr>
<td>Item 16</td>
<td>.5155</td>
</tr>
<tr>
<td>Item 19</td>
<td>.3007</td>
</tr>
</tbody>
</table>

Normlessness was defined as the degree of expectancy held by a foreign student that socially unapproved behaviors are required to achieve given goals. It also includes the perception that he/she is not bound by conventional standards or rules in the pursuit of such goals. The concept of normlessness was measured by a seven-item Likert-type Normlessness Scale. The scale items were adapted from Dean (1961), Holian (1972), Middleton (1963), Neal and Rettig (1963).
The theoretical distribution of the total score is from 7 to 35. The actual scores ranged from 12 to 34 with a mean of 21.15 and a standard deviation of 3.71.

After item analysis, two items were dropped from the final scale:

Item 2: "Foreign students in this university can get what they want without breaking rules."

Item 3: "In this university, the end often justifies the means."

The revised five-item Normlessness Scale had scores which ranged from 7 to 24 with a mean of 15.09 and standard deviation of 3.13, a mean inter-item correlation of .21, and a reliability coefficient of .57. Table 3.4b presents the corrected item-total correlations of the revised scale.

Table 3.4b. Corrected item-total correlations of the revised Normlessness Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 11</td>
<td>.2795</td>
</tr>
<tr>
<td>Item 21</td>
<td>.3053</td>
</tr>
<tr>
<td>Item 22</td>
<td>.3575</td>
</tr>
<tr>
<td>Item 23</td>
<td>.4085</td>
</tr>
<tr>
<td>Item 27</td>
<td>.2803</td>
</tr>
</tbody>
</table>

Meaninglessness was defined in this study as the degree of expectancy held by a foreign student that satisfactory predictions about outcomes of behavior cannot be made. The scale items were adapted from Burbach (1972), Holian (1972), and Middleton (1963). The concept was measured by the
seven-item Likert-type Meaninglessness Scale. The theoretical distribution of the total scores ranges from 7 to 35. The calculated scores for the meaninglessness variable ranged from 9 to 33, with a mean of 18.73 and a standard deviation of 4.73.

After item analysis, Item 12 was dropped from the revised scale:

"My experience here in this university really make a lot of sense."

The revised scale had scores which ranged from 7 to 30, with a mean and standard deviation of 16.44 and 4.45, respectively. The mean inter-item correlation was .39, and the reliability coefficient for the revised scale was .79. Its corrected item-total correlations are presented in Table 3.4c.

Table 3.4c. Corrected item-total correlation of the revised Meaninglessness Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 5</td>
<td>.5988</td>
</tr>
<tr>
<td>Item 7</td>
<td>.5954</td>
</tr>
<tr>
<td>Item 15</td>
<td>.3822</td>
</tr>
<tr>
<td>Item 18</td>
<td>.7304</td>
</tr>
<tr>
<td>Item 24</td>
<td>.4742</td>
</tr>
<tr>
<td>Item 25</td>
<td>.5277</td>
</tr>
</tbody>
</table>

Social Isolation was defined as the degree of expectancy held by a foreign student for exclusion and rejection. The concept of social isolation was measured by the seven-item Likert scale: Social Isolation Scale.
The scale items were adapted from Dean (1961), Burbach (1972), and Holian (1972). Theoretically, the distribution of scale scores ranged from 7 to 35. Actual scores, however, ranged from 11 to 35 with a mean of 21.85 and standard deviation of 5.08.

After item analysis, all items were retained. The scale scores had a mean inter-item correlation of .33 and a reliability coefficient of .77. Corrected item-total correlations are presented in Table 3.4d.

Table 3.4d. Corrected item-total correlations of the Social Isolation Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 3</td>
<td>.4198</td>
</tr>
<tr>
<td>Item 6</td>
<td>.5340</td>
</tr>
<tr>
<td>Item 9</td>
<td>.5379</td>
</tr>
<tr>
<td>Item 14</td>
<td>.5225</td>
</tr>
<tr>
<td>Item 17</td>
<td>.4588</td>
</tr>
<tr>
<td>Item 26</td>
<td>.4979</td>
</tr>
<tr>
<td>Item 28</td>
<td>.4606</td>
</tr>
</tbody>
</table>

Alienation was generally defined in this study as a negative orientation of a foreign student involving feelings of discordance and cynical beliefs toward his/her college community. The concept of alienation was measured by a 24-item Alienation Scale which was composed of the four above described subscales: Powerlessness, Normlessness, Meaninglessness, and Social Isolation.

Considering the Alienation Scale scale as a whole, scores ranged from 42 to 112, with a mean of 72.59 and a standard deviation of 13.34. The mean inter-item correlation was .23, and its reliability coefficient was
.88. Intercorrelations among the total alienation scale and its four sub-scales are presented in Table 3.4e.

Table 3.4e. Intercorrelation between Alienation Scale scores and its sub-scale scores

<table>
<thead>
<tr>
<th>Scale</th>
<th>POWRL</th>
<th>NORML</th>
<th>MEANL</th>
<th>SOCIS</th>
<th>ALIEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWRL</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NORML</td>
<td>.5075</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEANL</td>
<td>.5386</td>
<td>.5903</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIS</td>
<td>.5524</td>
<td>.4717</td>
<td>.4438</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>ALIEN</td>
<td>.8116</td>
<td>.7646</td>
<td>.8039</td>
<td>.8064</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

POWRL=Powerlessness; NORML=Normlessness; MEANL=Meaninglessness; SOCIS=Social isolation; ALIEN=Alienation.

From Table 3.4e we note that correlations among subscales were similar and moderate with a minimum of .44 and a maximum of .59.

It should be noted that the correlations between (total) Alienation and its subscales were very high, most of them at or near .80.

Table 3.4f reports the reliability of the Alienation Scale and sub-scales.

The reliability of the alienation subscales ranged from .57 to .79. The Normlessness Scale and the Meaninglessness Scale had the lowest and the highest reliability values, respectively.

It should be noted that path analysis, which is to be employed in this study, is appropriate only for the analysis of variables with high reliability. Here, the reliability coefficient of the Normlessness Scale, the
Table 3.4f. Reliability of Alienation Scale and its subscales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alpha</td>
</tr>
<tr>
<td>Alienation Scale</td>
<td>.8789</td>
</tr>
<tr>
<td>Powerlessness Scale</td>
<td>.6670</td>
</tr>
<tr>
<td>Normlessness Scale</td>
<td>.5656</td>
</tr>
<tr>
<td>Meaninglessness Scale</td>
<td>.7942</td>
</tr>
<tr>
<td>Social Isolation Scale</td>
<td>.7666</td>
</tr>
</tbody>
</table>

The lowest of the subscales, was not as high as desirable. On the other hand, the total Alienation Scale had the highest reliability coefficient (.88). Therefore, it was decided that combining all four subscales and treating them as a single variable (alienation) would be more appropriate for path analysis than to treat each subscale separately. This integrated variable alone was brought into the path analysis of the causal model (see Appendix C for the original Alienation Scale).

Role adjustment refers in this study to a process whereby a foreign student alters his/her role performance in terms of the demands of social situations or in terms of American normative standards of behavior. The concept was measured in terms of a foreign student's perception of his/her ability to behave or adjust in terms of demands of social situation or American normative standards. Role Adjustment Scale was specially constructed by the author, composed of eight Likert-type items (see Appendix D). Theoretically scores would range from 8 to 40. Actual scores ranged from 13 to 37, with a mean of 25.11 and standard deviation of 4.88.
After item analysis, two items were eliminated from the revised scale. These items were:

Item 29: "Despite being a foreigner, I can act like Americans."

Item 30: "I feel that I can do almost anything that American students here are expected to do."

The revised scale had actual scores which ranged from 11 to 28, with a mean and standard deviation of 19.33 and 3.95, respectively. The scale's mean inter-item correlation was .24, and the reliability coefficient was .66. The corrected item-total correlation of the scale is shown in Table 3.5.

Table 3.5. Corrected item-total correlation of Role Adjustment Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 31</td>
<td>.3346</td>
</tr>
<tr>
<td>Item 32</td>
<td>.4332</td>
</tr>
<tr>
<td>Item 33</td>
<td>.2255</td>
</tr>
<tr>
<td>Item 34</td>
<td>.4132</td>
</tr>
<tr>
<td>Item 35</td>
<td>.4657</td>
</tr>
<tr>
<td>Item 36</td>
<td>.4730</td>
</tr>
</tbody>
</table>

Role conflict refers in this study to a foreign student's perception of discrepancy between his/her perceived actual role and a preferred role. The Role Conflict Scale was designed to measure the concept in terms of a foreign student's experience of conflicts between what Americans expect
him/her to behave and what he/she or his/her fellow countrypersons think he/she should do (see Appendix E). Most item ideas were adapted from Rizzo et al. (1970). It was an eight-item Likert-type scale. The theoretical distribution of scores would be 8 to 40. The actual scores ranged from 8 to 36, with a mean of 23.41 and standard deviation of 5.31.

After item analysis, Item 44 was eliminated. Item 44 read:

"Despite associating with different groups of people, their expectations of me are always the same."

The revised seven-item Role Conflict Scale had calculated scores which ranged from 7 to 31, with a mean and standard deviation of 20.25 and 5.01, respectively. Its mean inter-item correlation was .41, and the scale had a reliability coefficient of .83. Table 3.6 presents corrected item-total correlation of the revised Role Conflict Scale.

Table 3.6. Corrected item-total correlation of Role Conflict Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 37</td>
<td>.6092</td>
</tr>
<tr>
<td>Item 38</td>
<td>.5944</td>
</tr>
<tr>
<td>Item 39</td>
<td>.3753</td>
</tr>
<tr>
<td>Item 40</td>
<td>.5133</td>
</tr>
<tr>
<td>Item 41</td>
<td>.6301</td>
</tr>
<tr>
<td>Item 42</td>
<td>.6447</td>
</tr>
<tr>
<td>Item 43</td>
<td>.6913</td>
</tr>
</tbody>
</table>

Socialization was defined as the transmission of social knowledge essential for a foreign student to live in American society. The concept was measured in terms of felt adequacy of knowledge about American patterns of normative behavior in general as well as in particular social contexts.
A composite-type Socialization Scale (see Appendix F) was specially constructed by the author to measure the degree of adequacy of such knowledge in a variety of contexts. The scale read:

"How would you describe the adequacy of your knowledge about the proper ways of behaving or doing things in this college community?"

Item 61: Professor-student relationships
Item 62: Student-student relationships
Item 63: Academic regulations
Item 64: Administrative regulations
Item 65: Friendships of the same sex
Item 66: Friendships of the opposite sex
Item 67: Immigration regulation
Item 68: Law and other regulations for daily life
Item 69: American customs

A respondent had five choices:

- Very inadequate (1)
- Somewhat inadequate (2)
- Uncertain (3)
- Somewhat adequate (4)
- Very adequate (5)

Scores for each item, thus, would range from 1 ("very inadequate") to 5 ("very adequate") and scale scores from 9 to 45. It was found that calculated scores ranged from 14 to 45, with a mean of 30.87 and standard deviation of 6.12.
After item analysis, all items were retained. The Socialization Scale had a mean inter-item correlation of .34. Reliability coefficient was .82. Its item-total correlation is shown in Table 3.7.

Table 3.7. Corrected item-total correlation of Socialization Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 61</td>
<td>.4956</td>
</tr>
<tr>
<td>Item 62</td>
<td>.5757</td>
</tr>
<tr>
<td>Item 63</td>
<td>.5292</td>
</tr>
<tr>
<td>Item 64</td>
<td>.5238</td>
</tr>
<tr>
<td>Item 65</td>
<td>.4309</td>
</tr>
<tr>
<td>Item 66</td>
<td>.4690</td>
</tr>
<tr>
<td>Item 67</td>
<td>.5123</td>
</tr>
<tr>
<td>Item 68</td>
<td>.5518</td>
</tr>
<tr>
<td>Item 69</td>
<td>.5803</td>
</tr>
</tbody>
</table>

Modernity generally refers to a set of attitudes, values, and ways of feeling and behaving required for effective participation in a modern society (Smith and Inkeles, 1966). The concept was measured in this study by a nine-item Likert-type scale (see Appendix G). Most scale items were adapted from Inkeles and Smith (1974), Gough (1976), Stephenson (1968). The theoretical distribution of scores would range from 9 to 45. Actual scores ranged from 22 to 43, with a mean and standard deviation of 34.00 and 4.29, respectively.

It should be noted that the Modernity Scale was multidimensional. Thus item analysis for this kind of measurement needs special consideration as far as its functional unity is concerned. On the one hand, to decide to drop some item from the scale solely on the basis of its internal
consistency or functional unity would be inappropriate. On the other hand, if path analysis is to be employed, a highly reliable scale is needed.

After item analysis, we decided to drop three items from the revised scale, taking both the above aspects into consideration. These items were dropped not only because their correlations with other items were very low but also because some of the correlations were negative. The three items dropped from the scale were as follows:

- Item 47: "Anyone can get ahead in life if he/she works hard enough."
- Item 48: "It is better to live for today and let tomorrow take care of itself."
- Item 50: "I would like to live for a time in several foreign countries."

The six-item revised scale had scores which ranged from 13 to 30, with a mean of 23 and standard deviation of 3.69. Its mean inter-item correlation was .22. The scale's reliability coefficient was .61 (compared to .51 for the original scale). The item-total correlation of the revised Modernity Scale is presented in Table 3.8.

Social participation was measured in terms of frequency of joining in a variety of social activities with Americans. A composite seven-item Social Participation Scale was specially constructed (see Appendix H):

- Item 54: General discussion or conversation
- Item 55: Eat a meal or have coffee
- Item 56: Visit each other's residence
- Item 57: Play games or engage in sports
- Item 58: Go to movies, party, concert, etc.
Table 3.8. Corrected item-total correlation of the revised Modernity Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 45</td>
<td>.2369</td>
</tr>
<tr>
<td>Item 46</td>
<td>.3086</td>
</tr>
<tr>
<td>Item 49</td>
<td>.4031</td>
</tr>
<tr>
<td>Item 51</td>
<td>.5577</td>
</tr>
<tr>
<td>Item 52</td>
<td>.3241</td>
</tr>
<tr>
<td>Item 53</td>
<td>.2866</td>
</tr>
</tbody>
</table>

Item 59: Join activities in student clubs

Item 60: Date

There were five response choices for a respondent:

Never (0)
Less than once a month (1)
Once or twice a month (2)
About once a week (3)
Several times a week (4)

The theoretical distribution of total scale scores would thus range from 0 to 28. Interestingly enough, the actual scores ranged from 0 to 28. The scale had a mean of 10.74 and standard deviation of 6.69. Its mean inter-item correlation was .49, and its reliability coefficient was .84. The item-total correlation for the scale is presented in Table 3.9.
Table 3.9. Corrected item-total correlation of the Social Participation Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 54</td>
<td>.5054</td>
</tr>
<tr>
<td>Item 55</td>
<td>.6959</td>
</tr>
<tr>
<td>Item 56</td>
<td>.7266</td>
</tr>
<tr>
<td>Item 57</td>
<td>.6752</td>
</tr>
<tr>
<td>Item 58</td>
<td>.8037</td>
</tr>
<tr>
<td>Item 59</td>
<td>.5045</td>
</tr>
<tr>
<td>Item 60</td>
<td>.6441</td>
</tr>
</tbody>
</table>

A summary of all final scales included for path analysis, the means, inter-item correlations, and reliabilities is presented in Table 3.10.

Table 3.10. Distributions of scales, mean inter-item correlation, and reliability

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Mean inter-item correlation</th>
<th>Reliability</th>
<th>Standardized alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALIEN</td>
<td>72.5932</td>
<td>13.3393</td>
<td>.2328</td>
<td>.8789</td>
<td>.8792</td>
</tr>
<tr>
<td>(POWRL)</td>
<td>19.2203</td>
<td>4.0385</td>
<td>.2580</td>
<td>.6670</td>
<td>.6760</td>
</tr>
<tr>
<td>(NORML)</td>
<td>15.0904</td>
<td>3.5706</td>
<td>.2061</td>
<td>.5656</td>
<td>.5648</td>
</tr>
<tr>
<td>(MEANL)</td>
<td>16.4350</td>
<td>4.4489</td>
<td>.3945</td>
<td>.7942</td>
<td>.7963</td>
</tr>
<tr>
<td>(SOCIS)</td>
<td>21.8125</td>
<td>5.0691</td>
<td>.3252</td>
<td>.7666</td>
<td>.7714</td>
</tr>
<tr>
<td>RLADJ</td>
<td>19.3277</td>
<td>3.9507</td>
<td>.2428</td>
<td>.6611</td>
<td>.6580</td>
</tr>
<tr>
<td>RLCNF</td>
<td>20.2486</td>
<td>5.0131</td>
<td>.4113</td>
<td>.8322</td>
<td>.8303</td>
</tr>
<tr>
<td>SOCLZ</td>
<td>30.8409</td>
<td>6.0236</td>
<td>.3354</td>
<td>.8187</td>
<td>.8196</td>
</tr>
<tr>
<td>MODNT</td>
<td>23.0000</td>
<td>3.6850</td>
<td>.2174</td>
<td>.6067</td>
<td>.6250</td>
</tr>
<tr>
<td>SOPAR</td>
<td>10.7900</td>
<td>6.6784</td>
<td>.4932</td>
<td>.8702</td>
<td>.8720</td>
</tr>
</tbody>
</table>

\(^a\)ALIEN=Alienation Scale; POWRL=Powerlessness Scale; NORML=Normlessness Scale; MEANL=Meaninglessness Scale; SOCIS=Social Isolation Scale; RLADJ=Role Adjustment Scale; RLCNF=Role Conflict Scale; SOCLZ=Socialization Scale; MODNT=Modernity Scale; SOPAR=Social Participation Scale.
Length of sojourn was measured by Item 86 asking:

"How long have you been in this university?"

Responses to this item ranged from 6 months to 102 months, with a mean of 28.72 and a standard deviation of 17.41.

Empirical Hypotheses in the Causal Model

In Chapter II, the general hypotheses were formulated at the theoretical level. This section presents empirical hypotheses:

E.H. 1: There is a negative relationship between role adjustment score and alienation score.

E.H. 2: There is a positive relationship between role conflict score and alienation score.

E.H. 3: There is a negative relationship between role conflict score and role adjustment score.

E.H. 4: There is a negative relationship between socialization score and alienation score.

E.H. 5: There is a positive relationship between socialization score and role adjustment score.

E.H. 6: There is a negative relationship between social participation score and alienation score.

E.H. 7: There is a positive relationship between social participation score and role adjustment score.

E.H. 8: There is a positive relationship between social participation score and socialization score.

E.H. 9: There is a negative relationship between modernity score and alienation score.

E.H. 10: There is a positive relationship between modernity score and role adjustment score.

E.H. 11: There is a negative relationship between modernity score and role conflict score.

E.H. 12: There is a negative relationship between length of sojourn score and alienation score.
E.H. 13: There is a positive relationship between length of sojourn score and role adjustment score.

E.H. 14: There is a positive relationship between length of sojourn score and socialization score.

Methods of Statistical Analysis

A Chi-square test will be employed for nominal variables as a test of significance for the social correlates of alienation. Goodman-Kruskal's Gamma (Mueller et al., 1970) was used for ordinal variables. For purposes of discussion, Gamma values of 0.00 to 0.24, 0.25 to 0.49, 0.50 to 0.74, and 0.75 and over will be considered as low, moderate, strong, or very strong association, respectively. A Chi-square test will also be used for testing of significance.

In testing the bivariate hypotheses, zero order correlation was employed. However, it has been argued that measurement error causes correlations to be attenuated, thus causing the correlations to be lower than their actual values. Therefore, testing the bivariate hypotheses was done in each case on the basis of correlations after correction for attenuation. The procedure for correction for attenuation of the correlation is as follows:

$$\gamma_{xy} = \frac{r_{xy}}{r_{xx} r_{yy}}$$

Where $\gamma_{xy} = $ true correlation between x and y

$r_{xy} = $ observed correlation

$r_{xx} = $ reliability coefficient of x

$r_{yy} = $ reliability coefficient of y
The .05 level of probability was used as the minimum for acceptance of a significant relationship. The one-tailed t-test was used because the hypothesized relationships were directional.

Finally, to test the causal model of sojourner alienation, a method of path analysis will be employed. According to Bancroft (1968), a less conservative significant level should be accepted in an exploratory research, since there has usually been too little research to eliminate contaminating extraneous factors that might prevent an appearance of a true relationship under a conservative test of significance.

Since this study is an exploratory research, path analysis of the causal model thus will use a .10 level of significance with a one-tailed t-test. The least square regression procedure will be employed. However, it has been argued recently that the ordinary least square approach yields biased results in the presence of measurement error. A more appropriate approach, called errors-in-variables approach, has been suggested. The errors-in-variables approach is based upon the notion that an observed value, X, is actually composed of a true value, x, and a measurement error, u.

\[ X = x + u \]  

When this is extended to multiple regression, we obtain:

\[ Y_t = \sum X_{ti} + \epsilon_t + q_t \]  

<table>
<thead>
<tr>
<th>True Value of Y</th>
<th>Function of True Values of Xs</th>
<th>Measurement Error</th>
<th>Specification Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>t = 1, 2, 3,...n</td>
<td>i = 1, 2, 3,...k</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The last element in the above question was added to take into account that portion of the error in predicting the true value of Y which results from a failure to include all the pertinent independent variables in the equation.

One of the major problems with the errors-in-variables approach has been its complicated procedure. This has inhibited its utilization by many sociologists. However, the Department of Statistics of Iowa State University has recently developed a computer program to handle this problem. The program is called "Super Carp" (Hidiroglou et al., 1978).

In order to utilize the Super Carp program, a researcher needs to calculate the measurement error variance ($S_{u_j}^2$) for each variable. The measurement error variance can be defined as:

$$S_{u_j}^2 = S_{x_j}^2 - \{\hat{\rho}(S_{x_j}^2)\} \quad (3)$$

Equation 3 is derived from Equation 1

$$X = x + u \quad (1a)$$

Assuming random measurement error, the variance of observed value can be defined as:

$$\sigma_{\text{observed}}^2 = \sigma_{\text{true}}^2 + \sigma_{\text{error}}^2 \quad (1b)$$

Equation (1b) can be rewritten as follows:

$$\sigma_{\text{error}}^2 = \sigma_{\text{observed}}^2 - \sigma_{\text{true}}^2 \quad (1c)$$

Reliability can be defined as a ratio of the true score variance to the total observed variance.
\[
\rho = \frac{\sigma_{true}^2}{\sigma_{observed}^2}
\]  
(4a)

This can be rewritten as:

\[
\sigma_{true}^2 = \rho(\sigma_{observed}^2)
\]  
(4b)

When Equation (4b) is substituted into (1c), the equation becomes:

\[
\sigma_{error}^2 = \sigma_{observed}^2 - \rho(\sigma_{observed}^2)
\]

or:

\[
S_{u_j}^2 = S_{x_j}^2 - \hat{\rho}(S_{x_j}^2)
\]  
(3)

Once the error variances \((S_{u_j}^2)\)'s have been calculated, the Super Carp program can be utilized to generate the following information:

1. Partial regression coefficients, standard errors, and t-tests, all of which are adjusted for measurement error.

2. Test for singularity of the model, i.e. testing the assumption that all independent variables are independent or in other words not measuring the same concept.

3. Specification test, to determine whether the specification error \((\sigma_q^2)\) is different from zero. In other words, to determine whether a set of independent variables are sufficient to account for the true score variance of the dependent variable.

In addition, calculation of \(R^2\) corrected for measurement error can be done by employing the following formula:

\[
R_{corrected}^2 = \frac{S_{explained}^2}{S_{true}^2}
\]
The above discussion of the errors-in-variables procedure includes only those formulas necessary for understanding and/or for the calculation of coefficients that are not directly output by the Super Carp computer program. An in-depth discussion of the errors-in-variables approach can be found in Warren et al. (1977), Aziz (1978).

In this study, therefore, the errors-in-variables approach is employed. The ordinary least square method is used only for comparison purposes, and results of the analysis using the least square method are presented in Appendix I.
CHAPTER IV. FINDINGS

In Chapter II, general hypotheses regarding sojourner alienation were derived from various theoretical perspectives, and a causal model of sojourner alienation was proposed. In Chapter III, concepts from these theoretical hypotheses were operationalized and appropriate scales described. The general hypotheses were then stated in empirical form for testing.

In this chapter, the analysis of data will be presented in three main sections: (1) the first section will present an analysis of the social correlates of alienation; (2) the second section will deal with testing of the theoretical and empirical hypotheses; and finally (3) the last section will present the path analysis of the proposed causal model of sojourner alienation.

Social Correlates of Alienation

It was expected that there would be significant relationships between socio-economic and demographic variables and alienation. In order to do this, alienation scores were categorized into three groups using the percentiles of 33 and 66 as cutting points. These categories were labeled as low-alienated, moderate-alienated, and high-alienated groups. From this categorization, crosstabs tables were generated. Results are presented below.

Sex and alienation

Table 4.1a presents relationship between sex and alienation. Percentages in Table 4.1a indicate that males tend to be more alienated than
Table 4.1a. Sex and alienation

<table>
<thead>
<tr>
<th>Sex</th>
<th>Low Number</th>
<th>Low Percent</th>
<th>Moderate Number</th>
<th>Moderate Percent</th>
<th>High Number</th>
<th>High Percent</th>
<th>Total Number</th>
<th>Total Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>41</td>
<td>32.0</td>
<td>39</td>
<td>30.5</td>
<td>48</td>
<td>37.5</td>
<td>128</td>
<td>72.3</td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>34.7</td>
<td>21</td>
<td>42.9</td>
<td>11</td>
<td>22.4</td>
<td>49</td>
<td>27.7</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
<td>59</td>
<td>33.3</td>
<td>177</td>
<td>100.0</td>
</tr>
</tbody>
</table>

aChi-square = 0.1294; not significant.

females. For instance, about 38 percent of males are in the high alienation group whereas only 22 percent of females are in that category. However, the relationship between sex and alienation is not statistically significant.

Age and alienation

Since age can be treated as interval data, the test for significant relationship can be done by a correlation coefficient. It was found that age was significantly through slightly correlated with alienation. The correlation coefficient was .1538 (significant at .02 level).

Marital status and alienation

Table 4.1b presents the relationship between marital status and alienation. It was found that there was some degree of relationship between marital status and alienation. Single people tended to be less alienated than married people. For instance, 36 percent of single people were in the low alienation group, whereas only 29 percent of married people were in
Table 4.1b. Marital status and alienation

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Single</td>
<td>36</td>
<td>36.0</td>
<td>34</td>
<td>34.0</td>
</tr>
<tr>
<td>Married</td>
<td>22</td>
<td>28.6</td>
<td>26</td>
<td>33.8</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

*Chi-square = 1.4996; not significant.*

that category, and the percentages were inverted for the high alienation group, i.e. 30 percent of single people and 38 percent of married people were in that group. However, the relationship was not significant.

Social status and alienation

In considering social status and alienation, we included three measures of social status: (1) perceived social status of parents; (2) perceived social status; and (3) perceived status change involved in living in another culture. The first measure is a rather conventional measure; however, the social status of one's parents seems to be not too relevant to the subjects who move to another society. It may be assumed that most students who are able to attend school in another land came from upper-middle or upper-class homes. Under this circumstance, it was thought that the students' perceived social status in the host society would be more relevant. Further, moving to a different social structure affects the relative social status of the individual. Therefore, status change was expected to be closely related to alienation. Since the indicator of status is
Table 4.1c. Social status of parent, perceived social status, and alienation

<table>
<thead>
<tr>
<th>Social status</th>
<th>Correlation coefficient</th>
<th>Significant level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social status of parent</td>
<td>.0235</td>
<td>Not significant</td>
</tr>
<tr>
<td>Perceived social status</td>
<td>-.3615</td>
<td>Significant at .001</td>
</tr>
</tbody>
</table>

continuous (ten-point scale), we may test the relationships by Pearson correlation coefficient. It may be noted that, on the one hand, there is virtually zero correlation between the social status of one's parents and alienation; on the other hand, there is a highly significant though moderate negative correlation between perceived social status (in the host society) and alienation.

Table 4.1d presents the relationship between perceived status change and alienation. It was found that perceived status change was negatively related to alienation, i.e. downward change of status was associated with high alienation. The degree of association was moderate (Gamma = -.02922) and statistically significant at .003 level.

Financial situation and alienation

It was assumed that financial problems might induce negative feelings toward society (alienation). The relationship between financial situation and alienation is presented in Table 4.1e. Financial situation seems to have a negative relationship with alienation: for instance, 40 percent of those who feel financially adequate are in the low alienation group, whereas only 21 percent of those who are financially inadequate are in such
Table 4.1d. Perceived status change and alienation

<table>
<thead>
<tr>
<th>Perceived status change</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Lower</td>
<td>17</td>
<td>21.3</td>
<td>26</td>
<td>32.5</td>
</tr>
<tr>
<td>The same</td>
<td>25</td>
<td>44.6</td>
<td>22</td>
<td>39.3</td>
</tr>
<tr>
<td>Higher</td>
<td>16</td>
<td>39.0</td>
<td>12</td>
<td>29.3</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

\[^a\text{Chi-square} = 15.9660; \text{significant at .003; Gamma} = -0.2922.\]

Table 4.1e. Financial situation and alienation

<table>
<thead>
<tr>
<th>Financial situation</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Inadequate</td>
<td>6</td>
<td>20.7</td>
<td>13</td>
<td>44.8</td>
</tr>
<tr>
<td>Somewhat adequate</td>
<td>15</td>
<td>26.3</td>
<td>20</td>
<td>35.1</td>
</tr>
<tr>
<td>Adequate or Very adequate</td>
<td>37</td>
<td>40.7</td>
<td>27</td>
<td>29.7</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

\[^a\text{Chi-square} = 4.9426; \text{not significant; Gamma} = -0.1962.\]
a group. An inverted pattern is found in the high alienation group. However, the relationship is slight and not significant.

Field of study and alienation

Some research findings reported a relationship between the academic field of study and alienation. Table 4.1f shows a relationship between field of study and alienation. Percentages in Table 4.1f indicate that there is some relationship between the field of study and alienation. For instance, 46 percent of those who are in the field of social science are in the high alienation group, whereas only 34 percent of those majoring in the field of pure science and only 30 percent of those in applied or professional fields are in such a group. However, the relationship is not significant.

Table 4.1f. Field of study and alienation

| Field of study | Alienation | | | | | |
|----------------|------------|------------|------------|------------|------------|
|                | Low (Number | Percent) | Moderate (Number | Percent) | High (Number | Percent) | Total (Number | Percent) |
| Social science | 8 (33.3)   | 5 (20.8)  | 11 (45.8)  | 24 (13.6)  |
| Natural science| 17 (36.2)  | 16 (34.0) | 14 (29.8)  | 47 (26.6)  |
| Applied        | 28 (30.1)  | 33 (35.5) | 32 (34.4)  | 93 (52.5)  |
| Others         | 5          | 6          | 2          | 13 (7.3)   |
| Total          | 58 (32.8)  | 60 (33.9)  | 59 (33.3)  | 177 (100.0) |

^Chi square = 4.9426; not significant.
Level of education and alienation

Table 4.1g shows relationship between level of education and alienation. Level of education has some relationship with alienation; for instance, only 29 percent of those at undergraduate level are in the high alienation group, whereas about 35 percent of those who are at graduate level are in the same category. However, the relationship is not statistically significant. Gamma is .0297.

Table 4.1g. Level of education and alienation

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Alienation</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>Total</td>
<td></td>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>18</td>
<td>16</td>
<td>14</td>
<td>48</td>
<td>27.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.A. or M.S.</td>
<td>14</td>
<td>20</td>
<td>19</td>
<td>53</td>
<td>29.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ph.D.</td>
<td>25</td>
<td>23</td>
<td>26</td>
<td>74</td>
<td>41.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>60</td>
<td>59</td>
<td>177</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^Chi-square = 2.8357; not significant; Gamma = .0297.

Religion and alienation

From review of previous research in Chapter II, relationship between religion and alienation was found, though it has been argued that religious membership per se is less important than the degree of religiosity or perceived influence of religion upon one's life. This study thus included both aspects. Table 4.1h and Table 4.1i present the findings regarding relationships between religious membership and alienation and religiosity and alienation, respectively. Percentages in Table 4.1h indicate some
relationship between religion and alienation: those who are Protestant show the highest alienation, as 46 percent of them are in the high alienation category, and those who are Catholic show the lowest alienation, as only 32 percent of them are in the high alienation group. It is interesting to note that those with no religion tend to be least alienated, as only 32 percent of them are in the high alienation category. However, due to the small sample size (making the frequency within each cell extremely low), the interpretation based upon the table would be misleading: the relationship is not statistically significant.

However, as far as religiosity is concerned, the findings are significant (see Table 4.1i). Table 4.1i shows that religiosity is low but significantly and negatively related to alienation (Gamma = -.10).
Table 4.11. Religiosity and alienation

<table>
<thead>
<tr>
<th>Religious influence</th>
<th>Alienation</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Number</td>
<td>Percent</td>
<td>Moderate</td>
<td>Number</td>
</tr>
<tr>
<td>Very little</td>
<td></td>
<td>22</td>
<td>40.7</td>
<td>9</td>
<td>16.7</td>
</tr>
<tr>
<td>Little</td>
<td></td>
<td>14</td>
<td>26.9</td>
<td>19</td>
<td>36.5</td>
</tr>
<tr>
<td>Much</td>
<td></td>
<td>9</td>
<td>22.5</td>
<td>19</td>
<td>47.5</td>
</tr>
<tr>
<td>Very much</td>
<td></td>
<td>13</td>
<td>43.3</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>No response</td>
<td></td>
<td>0</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

aChi-square = 17.3806; significant at .03; Gamma = -0.1040.

Type of residence and alienation

Table 4.1j presents findings regarding the relationship between type of residence and alienation. It may be noted that those who live in a dormitory tended to be less alienated than those who live in a university apartment or a private apartment. For instance, about 30 percent of those living in a dormitory were in the high alienation category, whereas about 39 and 36 of those who resided in a university apartment or a private apartment, respectively, are in the high alienation group. However, the relationship was not statistically significant.

Country of origin and alienation

As far as country of origin and alienation is concerned, some degree of relationship is presented in Table 4.1k below. Percentages in Table 4.1k reveal that those from country G tend to be higher alienated than
Table 4.1j. Type of residence and alienation

<table>
<thead>
<tr>
<th>Type of residence</th>
<th>Alienation Low</th>
<th>Alienation Moderate</th>
<th>Alienation High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Dormitory</td>
<td>21</td>
<td>39.6</td>
<td>20</td>
<td>37.7</td>
</tr>
<tr>
<td>University apartment</td>
<td>18</td>
<td>25.0</td>
<td>26</td>
<td>36.1</td>
</tr>
<tr>
<td>Private apartment</td>
<td>17</td>
<td>36.2</td>
<td>13</td>
<td>27.7</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>-</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

^Chi-square = 8.7416; not significant.

Table 4.1k. Country of origin and alienation

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Alienation Low</th>
<th>Alienation Moderate</th>
<th>Alienation High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Country A</td>
<td>8</td>
<td>29.6</td>
<td>12</td>
<td>20.0</td>
</tr>
<tr>
<td>Country B</td>
<td>5</td>
<td>45.5</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Country C</td>
<td>6</td>
<td>35.3</td>
<td>6</td>
<td>35.3</td>
</tr>
<tr>
<td>Country D</td>
<td>3</td>
<td>13.0</td>
<td>9</td>
<td>39.1</td>
</tr>
<tr>
<td>Country E</td>
<td>14</td>
<td>45.2</td>
<td>9</td>
<td>29.0</td>
</tr>
<tr>
<td>Country F</td>
<td>14</td>
<td>37.8</td>
<td>12</td>
<td>32.4</td>
</tr>
<tr>
<td>Country G</td>
<td>1</td>
<td>10.0</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

^Chi-square = 16.5335; not significant.
those of other countries (60 percent in the high alienation category); those from Country A and Country E exhibit less alienation than the rest. However, it should be noted that the frequency for each cell is small due to the small sample size, and any generalization from this table would be misleading. Further, relationship is not statistically significant.

Language competency and alienation

It was speculated that language competency might be related to alienation. Table 4.11 presents results concerning the relationship between language competency and alienation. It was found that there was no pattern of relationship between language competency and alienation. No significant relationship was found. Gamma is -0.0057.

Table 4.11. Language competency and alienation

<table>
<thead>
<tr>
<th>Language competency</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Very poor or poor</td>
<td>7</td>
<td>36.8</td>
<td>5</td>
<td>26.3</td>
</tr>
<tr>
<td>Average</td>
<td>17</td>
<td>27.9</td>
<td>23</td>
<td>37.7</td>
</tr>
<tr>
<td>Good</td>
<td>24</td>
<td>39.3</td>
<td>20</td>
<td>32.8</td>
</tr>
<tr>
<td>Excellent</td>
<td>10</td>
<td>27.8</td>
<td>12</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>32.8</td>
<td>60</td>
<td>33.9</td>
</tr>
</tbody>
</table>

\[\text{Chi-square} = 3.2021; \text{not significant}; \text{Gamma} = -0.0057.\]
In review, a summary of the results of the analysis of social correlates of alienation is shown in Table 4.1m.

Table 4.1m. Summary of social correlates of alienation

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Chi-square value</th>
<th>Gamma value</th>
<th>Zero-order correlation</th>
<th>Significant level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>.1294</td>
<td>-</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Age</td>
<td>-</td>
<td>-</td>
<td>.1538</td>
<td>Signif. at .02</td>
</tr>
<tr>
<td>Marital status</td>
<td>1.4996</td>
<td>-</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Social status of parent</td>
<td>-</td>
<td>-</td>
<td>.0235</td>
<td>N.S.</td>
</tr>
<tr>
<td>Perceived social status</td>
<td>-</td>
<td>-</td>
<td>-.3615</td>
<td>Signif. at .001</td>
</tr>
<tr>
<td>Status change</td>
<td>15.9660</td>
<td>-.2922</td>
<td>-</td>
<td>Signif. at .003</td>
</tr>
<tr>
<td>Financial situation</td>
<td>6.1217</td>
<td>-.1962</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Field of study</td>
<td>4.9426</td>
<td>-</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Level of education</td>
<td>2.8357</td>
<td>.0297</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Religion</td>
<td>19.5243</td>
<td>-</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Religiosity</td>
<td>17.3806</td>
<td>-.1040</td>
<td>-</td>
<td>Signif. at .03</td>
</tr>
<tr>
<td>Type of residence</td>
<td>8.7416</td>
<td>-</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Country of origin</td>
<td>16.5335</td>
<td>-</td>
<td>-</td>
<td>N.S.</td>
</tr>
<tr>
<td>Language competency</td>
<td>3.2021</td>
<td>-.0057</td>
<td>-</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Tests of Bivariate Hypotheses in the Causal Model

This section deals with the tests of bivariate hypotheses involving variables in the causal model. Examination of these hypotheses will be based upon correlations corrected for attenuation. The corrected correlation coefficient matrix is presented below the diagonal in Table 4.2a. (The uncorrected correlation matrix is presented in Appendix J.)

Role adjustment and alienation

E.H. 1: There is a negative relationship between role adjustment score and alienation score.
Table 4.2a. Corrected correlations for variables in the causal model

<table>
<thead>
<tr>
<th>Variable</th>
<th>ALIEN</th>
<th>RLADJ</th>
<th>RLCNF</th>
<th>SOCLZ</th>
<th>SOPAR</th>
<th>MODNT</th>
<th>LNGSJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALIEN</td>
<td></td>
<td>-0.7377</td>
<td>0.7121</td>
<td>-0.7838</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RLADJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RLCNF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCLZ</td>
<td>-0.5217</td>
<td>0.5478</td>
<td>-0.4075</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOPAR</td>
<td>-0.3264</td>
<td>0.4456</td>
<td>-0.1518</td>
<td>0.3843</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MODNT</td>
<td>0.1158</td>
<td>0.1932</td>
<td>-0.0420</td>
<td>0.0085</td>
<td>0.1695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNGSJ</td>
<td>0.1078</td>
<td>0.0800</td>
<td>0.0908</td>
<td>0.1636</td>
<td>0.1322</td>
<td>0.3112</td>
<td></td>
</tr>
</tbody>
</table>

\[ ^{a} \text{ALIEN=alienation; RLADJ=role adjustment; RLCNF=role conflict; SOCLZ=socialization; SOPAR=social participation; MODNT=modernity; LNGSJ=length of sojourn.} \]

\[ ^{b} \text{Although these three variables correlated highly, the errors-in-variables test of singularity revealed that they were independent from each other, i.e. they did not measure the same concept.} \]

S.H. 1: a) HO: \( \rho \geq 0 \), b) HA: \( \rho < 0 \)
\[ r = -0.74, t^1 = -7.288, p < .0005 \]

The hypothesized relationship between role adjustment and alienation is supported by the data. The correlation is strong, negative, and statistically significant. It means the higher the role adjustment, the lower the alienation.

Role conflict and alienation

E.H. 2: There is a positive relationship between role conflict score and alienation.

\[ ^{1} \text{Since it has been argued that calculation of t-value based upon correlation corrected for attenuation is not legitimate, here, significance of the corrected coefficients are established with the errors-in-variables t-test of the regression coefficient.} \]
S.H. 2:  a) HO: $\rho \leq 0$, b) HA: $\rho > 0$

$$r = .71, t = 10.131, p < .0005$$

The data support the hypothesized relationship between role conflict and alienation. The correlation is strong, positive, and highly significant. This means if role conflict is high, then alienation will be high.

**Role conflict and role adjustment**

E.H. 3: There is a negative relationship between role conflict score and role adjustment score.

S.H. 3:  a) HO: $\rho > 0$, b) HA: $\rho < 0$

$$r = -.78, t = -.10.084, p < .0005$$

The hypothesized correlation between role conflict and role adjustment is confirmed by the data. The relationship between them is very strong, negative, which means that if role conflict is high, then role adjustment will be low.

**Socialization and alienation**

E.H. 4: There is a negative relationship between socialization score and alienation score.

S.H. 4:  a) HO: $\rho > 0$, b) HA: $\rho < 0$

$$r = -.52, t = -5.407, p < .0005$$

The hypothesis 4 is supported by the data. Socialization is significantly and negatively correlated with alienation. It is concluded that the higher the socialization, the lower the alienation.
Socialization and role adjustment

E.H. 5: There is a positive relationship between socialization score and role adjustment score.

S.H. 5: a) HO: $\rho \leq 0$, b) HA: $\rho > 0$

$r = 0.55$, $t = 6.017$, $p < .0005$

The hypothesized relationship between socialization and role adjustment is verified by the data. The correlation between them is positive and moderate.

Social participation and alienation

E.H. 6: There is a negative relationship between social participation score and alienation score.

S.H. 6: a) HO: $\rho > 0$, b) HA: $\rho < 0$

$r = -0.33$, $t = -3.546$, $p < .0005$

The data support the hypothesis that social participation is negatively related to alienation. However, the correlation is weak though highly significant.

Social participation and role adjustment

E.H. 7: There is a positive relationship between social participation score and role adjustment.

S.H. 7: a) HO: $\rho < 0$, b) HA: $\rho > 0$

$r = 0.45$, $t = 4.640$, $p < .0005$

The data verify the hypothesized relationship: there is a positive relationship between social participation and role adjustment.
Social participation and socialization

E.H. 8: There is a positive relationship between social participation score and socialization score.

S.H. 8: a) HO: $\rho \leq 0$, b) HA: $\rho > 0$

$r = .38$, $t = 4.042$, $p < .0005$

The hypothesized relationship between social participation and socialization is supported by the data. The correlation is highly significant but moderate.

Modernity and alienation

E.H. 9: There is a negative relationship between modernity score and alienation score.

S.H. 9: a) HO: $\rho > 0$, b) HA: $\rho < 0$

$r = .12$, $t = 0.088$, NS

The hypothesis is not confirmed; there is no significant relationship between modernity and alienation. The correlation is very weak, positive (rather than negative as hypothesized) but not statistically significant. It is concluded that there is no relationship between modernity and alienation.

Modernity and role adjustment

E.H. 10: There is a positive relationship between modernity and role adjustment.

S.H. 10: a) HO: $\rho \leq 0$, b) HA: $\rho > 0$

$r = .19$, $t = 1.724$, $p < .05$

The data verify that there is a relationship between modernity and role adjustment such that if modernity is high, then role adjustment will
be high. However, the degree of correlation is weak and less statistically significant than the other supported hypotheses above (the level of significance is .01 as compared to .0005 for other supported hypotheses).

**Modernity and role conflict**

E.H. 11: There is a **negative** relationship between modernity score and role conflict score.

S.H. 11:  
(a) HO: $\rho \geq 0$,  
(b) HA: $\rho < 0$

$r = -.04$, $t = -0.464$, N.S.

The hypothesized relationship is not supported by the data. Although the correlation is negative as hypothesized, its degree is negligible and not statistically significant. The null hypothesis is thus accepted. There is no negative relationship between modernity and role conflict.

**Length of sojourn and alienation**

E.H. 12: There is a **negative** relationship between length of sojourn score and alienation score.

S.H. 12:  
(a) HO: $\rho \geq 0$,  
(b) HA: $\rho < 0$

$r = .11$, $t = 1.222$, N.S.

The hypothesis 12 is not supported by the data. Not only is the correlation positive (in contrast to the hypothesized negative correlation), but it is not significant. It is thus concluded that there is no relationship between length of sojourn and alienation.

**Length of sojourn and role adjustment**

E.H. 13: There is a **positive** relationship between length of sojourn score and role adjustment score.
S.H. 13: a) HO: $p < 0$, b) HA: $p > 0$

$r = .08, t = 0.788, \text{N.S.}$

The data fail to support the hypothesized relationship between length of sojourn and role adjustment. Although the correlation is positive as hypothesized, it is very weak and not statistically significant.

**Length of sojourn and socialization**

E.H. 14: There is a positive relationship between length of sojourn score and socialization score.

S.H. 14: a) HO: $p < 0$, b) HA: $p > 0$

$r = .16, t = 1.847, p < .05$

The hypothesized positive relationship between length of sojourn and socialization is confirmed. The correlation is statistically significant but rather weak. It is concluded that there is a positive relationship between the two variables.

A summary of the test of the bivariate relationships is presented in Table 4.2b.

**Test of the Causal Model**

In Chapter II the theoretical model of sojourner alienation was constructed and presented (Figure 2f). In this section, the causal model will be tested by path analysis technique (Duncan, 1966; Coward et al., 1968; Warren et al., 1977).

Path analysis technique was originated in the field of genetics by Wright (1934). Duncan (1966) first applied path analysis technique to sociological data. It has been said that the publication of his article, "Path Analysis: Sociological Examples," marked the real beginning of the
<table>
<thead>
<tr>
<th>Empirical hypotheses</th>
<th>Hypothesized relationship</th>
<th>Corrected correlation coefficient</th>
<th>&quot;T&quot; value</th>
<th>Result of hypothesis test</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.H. 1</td>
<td>RLADJ and ALIEN</td>
<td>-.7377</td>
<td>-7.288</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 2</td>
<td>RLCNF and ALIEN</td>
<td>.7121</td>
<td>10.131</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 3</td>
<td>RLCNF and RLADJ</td>
<td>-.7838</td>
<td>-10.084</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 4</td>
<td>SOCLZ and ALIEN</td>
<td>-.5217</td>
<td>-5.407</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 5</td>
<td>SOCLZ and RLADJ</td>
<td>.5478</td>
<td>6.017</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 6</td>
<td>SOPAR and ALIEN</td>
<td>-.3264</td>
<td>-3.546</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 7</td>
<td>SOPAR and RLADJ</td>
<td>.4456</td>
<td>4.680</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 8</td>
<td>SOPAR and SOCLZ</td>
<td>.3844</td>
<td>4.042</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 9</td>
<td>MODNT and ALIEN</td>
<td>.1158</td>
<td>0.088</td>
<td>N.S.</td>
</tr>
<tr>
<td>E.H. 10</td>
<td>MODNT and RLADJ</td>
<td>.1932</td>
<td>1.724</td>
<td>Supported</td>
</tr>
<tr>
<td>E.H. 11</td>
<td>MODNT and RLCNF</td>
<td>-.0420</td>
<td>-0.464</td>
<td>N.S.</td>
</tr>
<tr>
<td>E.H. 12</td>
<td>LNGSJ and ALIEN</td>
<td>.1078</td>
<td>1.222</td>
<td>N.S.</td>
</tr>
<tr>
<td>E.H. 13</td>
<td>LNGSJ and RLADJ</td>
<td>.0800</td>
<td>0.788</td>
<td>N.S.</td>
</tr>
<tr>
<td>E.H. 14</td>
<td>LNGSJ and SOCLZ</td>
<td>.1636</td>
<td>1.847</td>
<td>Supported</td>
</tr>
</tbody>
</table>

^ALIEN=alienation; LNGSJ=length of sojourn; MODNT=modernity; SOCLZ=socialization; SOPAR=social participation; RLADJ=role adjustment; RLCNF=role conflict.

Significance of the corrected correlation coefficients were established with the errors-in-variables t-test of the regression coefficient. It takes a t-value of 1.658 to be significant at .05 level.

The use of path analysis in sociology (Tai, 1971; Warren et al., 1977). Path model represents an analytical technique for examining the interrelationships and relative contribution of variables in a theoretical model.

The starting point for path analysis is to construct a theoretical model which, at a very minimum, establishes a temporal and/or causal ordering. In describing cause and effect relationships among variables, the arrow (→) indicates the directional influence (asymmetrical) and a double-arrow curve (↔) indicates symmetrical correlation.
In this section, all concepts from the theoretical model shown in Figure 2f are converted into a path model, with causal ordering of all variables ($X_1$, $X_2$, $X_3$, ..., $X_7$) to be examined. The path model of sojourner alienation is presented in Figure 4a.

As reported in Chapter III, the seven variables were operationalized and measured. Based upon the path model presented in Figure 4a, a set of recursive equations for the path model which represents causal relationships among the variables can be written as follows:

\[
\begin{align*}
X_1 &= e_1 \\
X_2 &= e_2 \\
X_3 &= e_3 \\
X_4 &= b_{41.3}X_1 + b_{43.1}X_3 + e_4 \\
X_5 &= b_{52}X_2 + e_5 \\
X_6 &= b_{61.2345}X_1 + b_{62.1345}X_2 + b_{63.1245}X_3 + b_{64.1235}X_4 + b_{65.1234}X_5 + e_6 \\
X_7 &= b_{71.23456}X_1 + b_{72.13456}X_2 + b_{73.12456}X_3 + b_{74.12356}X_4 + b_{75.12346}X_5 + b_{76.12345}X_6 + e_7
\end{align*}
\]

It should be noted that during the process of testing bivariate relationships among variables in the causal model (especially when the correlation matrix in Table 4.2a was considered), it was found that there was a significant negative relationship between socialization and role conflict with a significance level of .0005, by the one-tailed t-test and a correlation coefficient of -41. The correlation was relatively much higher than other bivariate relationships not hypothesized (e.g. .15, .04, .09).
$X_1 = \text{length of sojourn}$

$X_2 = \text{modernity}$

$X_3 = \text{social participation}$

$X_4 = \text{socialization}$

$X_5 = \text{role conflict}$

$X_6 = \text{role adjustment}$

$X_7 = \text{alienation}$

Figure 4a. Path model of sojourner alienation
Certainly a statistically significant relationship by itself could not justify the inclusion of this relationship in the model. The relationship between socialization and role conflict, however, can be explained theoretically. Socialization can be regarded as a process of internalization of value orientation. Socialization can cause a reduction in role conflict in the sense that a sojourner with role conflict would perceive a lower degree of role conflict after internalized value orientation of the host social system which became part of his/her self. Since the sojourner has internalized a new set of values, i.e. that of the host social system, his/her frame of reference would become more concordant with that of the host social system, thus perceives less role conflict.

Based upon the above theoretical reinterpretation, it was decided to include the relationship in the path model and treat it as one of hypothesized paths for the analysis. Accordingly, a recursive equation for $X_5$ (role conflict) becomes:

$$X_5 = b_{52.4} X_2 + b_{54.2} X_4 + e_4$$

In order to employ errors-in-variables approach and the Super Carp program, estimated true variances and estimated measurement error variances for each variable were calculated on a basis of its observed variance and its reliability. This is presented in Table 4.3.

Based upon the variances, the recursive equations were solved. Partial regression and standardized partial regression coefficients (path coefficients) were computed. The t-test of significance at the .10 level was used to assess the computed t-value for each partial regression coefficient. The findings of causal relationships between the independent
Table 4.3. Observed variance, reliability, estimated true variance, and measurement error variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observed variance ($S_{obs'd}^2$)</th>
<th>Reliability ($\hat{\rho}$)</th>
<th>Estimated true variance $\hat{\rho}(S_{obs'd}^2)$</th>
<th>Estimated measurement error variance $\hat{\rho}(S_{m.e.}^2)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_1$-LNGSJ</td>
<td>302.9833</td>
<td>1.0000</td>
<td>302.983300</td>
<td>0.000000</td>
</tr>
<tr>
<td>$X_2$-MODNT</td>
<td>13.7902</td>
<td>.6067</td>
<td>8.366514</td>
<td>5.423686</td>
</tr>
<tr>
<td>$X_3$-SOPAR</td>
<td>45.0424</td>
<td>.8702</td>
<td>39.195896</td>
<td>5.846504</td>
</tr>
<tr>
<td>$X_4$-SCLZ</td>
<td>36.3933</td>
<td>.8187</td>
<td>29.795194</td>
<td>6.598106</td>
</tr>
<tr>
<td>$X_5$-RLC NF</td>
<td>25.1446</td>
<td>.8322</td>
<td>20.925336</td>
<td>4.219264</td>
</tr>
<tr>
<td>$X_6$-RLADJ</td>
<td>15.2221</td>
<td>.6611</td>
<td>10.063330</td>
<td>5.158770</td>
</tr>
<tr>
<td>$X_7$-ALIEN</td>
<td>178.3477</td>
<td>.8789</td>
<td>156.749790</td>
<td>21.597910</td>
</tr>
</tbody>
</table>

variables and the dependent variables in the path model are presented for all paths in Table 4.4 and paths for the path model are presented in Figure 4b.

The results of the errors-in-variables analysis of the path model reveal that 11 of the 15 hypothesized causal paths predicted in the model are statistically supported at the .10 level of significance by the one-tailed t-test. The four hypothesized causal relationships not significant at the .10 level are those between (1) length of sojourn and role adjustment; (2) social participation and alienation; (3) modernity and role adjustment; and (4) modernity and role conflict.

Length of sojourn is moderately but significantly related to socialization ($r = .31, p < .05$), and socialization is significantly related to role adjustment ($r = .55, p < .005$). Length of sojourn has thus an indirect effect upon role adjustment through socialization. Considering the causal relationship between social participation and alienation, social participation is significantly related to role adjustment and socialization...
Table 4.4. Partial regression coefficients, t-values, path coefficients, and percent variance explained ($R^2$) in the original model

<table>
<thead>
<tr>
<th>Dependent and independent variables</th>
<th>Partial regression coefficient</th>
<th>&quot;T&quot; value</th>
<th>Standardized partial regression coefficient (path coef.)</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_4$-socialization</td>
<td></td>
<td></td>
<td></td>
<td>.16</td>
</tr>
<tr>
<td>$X_1$-length of sojourn</td>
<td>.04</td>
<td>1.297*</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>$X_3$-social participation</td>
<td>.33</td>
<td>3.753******</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td></td>
<td></td>
<td></td>
<td>.18</td>
</tr>
<tr>
<td>$X_2$-modernity</td>
<td>-.07</td>
<td>-0.400</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td>$X_4$-socialization</td>
<td>-.35</td>
<td>-4.173******</td>
<td>-.42</td>
<td></td>
</tr>
<tr>
<td>$X_6$-role adjustment</td>
<td></td>
<td></td>
<td></td>
<td>.75</td>
</tr>
<tr>
<td>$X_1$-length of sojourn</td>
<td>.01</td>
<td>0.563</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>$X_2$-modernity</td>
<td>.12</td>
<td>0.957</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>$X_3$-social participation</td>
<td>.13</td>
<td>2.743*****</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>$X_4$-socialization</td>
<td>.10</td>
<td>1.705**</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td>-.47</td>
<td>-7.612******</td>
<td>-.67</td>
<td></td>
</tr>
<tr>
<td>$X_7$-alienation</td>
<td></td>
<td></td>
<td></td>
<td>.66</td>
</tr>
<tr>
<td>$X_1$-length of sojourn</td>
<td>.06</td>
<td>1.360*</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>$X_2$-modernity</td>
<td>.77</td>
<td>1.802**</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>$X_3$-social participation</td>
<td>-.15</td>
<td>-0.763</td>
<td>-.08</td>
<td></td>
</tr>
<tr>
<td>$X_4$-socialization</td>
<td>-.39</td>
<td>-1.765**</td>
<td>-.17</td>
<td></td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td>.95</td>
<td>1.867**</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>$X_6$-role adjustment</td>
<td>-1.42</td>
<td>-1.465*</td>
<td>-.36</td>
<td></td>
</tr>
</tbody>
</table>

*p < .10.

**p < .05.

*****p < .0005.
Figure 4b. The original path model of sojourner alienation

\[ R^2 = 0.66 \]

\( a \) Residual (\( \sqrt{1-R^2} \)).
Both socialization and role adjustment are highly related to alienation ($r = .52$, $p < .0005$ and $r = .74$, $p < .0005$, respectively). In addition, socialization is moderately related to role conflict ($r = .41$, $p < .0005$). Social participation thus indirectly affects alienation through socialization, role conflict, and role adjustment.

Considering modernity, however, it is concluded that there is only a direct effect of modernity upon alienation. No indirect effect has been found, since there is no significant causal relationship between modernity and role conflict and modernity and role adjustment.

As far as the analysis of the first equation representing a set of relationships in the theoretical model is concerned, it was found that both length of sojourn and social participation were causally related to socialization, with a significance level of .10 for length of sojourn but .0005 for social participation. However, only about 16 percent of the variance in socialization was explained by the two variables. The result of the test for singularity was 7.59, significant at .001 level, meaning that the independent variables are truly independent, i.e. not measuring the same concept.

For the second equation, modernity and socialization were hypothesized to be causally related to role conflict. However, only socialization was found significantly related to role conflict with .0005 level of significance. The independent variables could account for about 18 percent of the variance in role conflict. Test for singularity of 2.52 with .001 level of significance means that the independent variables were independent from each other.
In the third equation, it was hypothesized that length of sojourn, modernity, social participation, socialization, and role conflict were causally related to role adjustment, but, using the errors-in-variables method, only social participation, socialization, and role conflict were found significantly related to role adjustment at .0005, .05, and .0005 levels, respectively. Interestingly enough, it was found that the variables in the equation could account for over 75 percent of the variance in role adjustment. Singularity test is 2.31 with .001 level of significance.

Of six independent variables included in the last equation to explain alienation, five variables were found significantly related to alienation. These variables are length of sojourn, modernity, socialization, role conflict, and role adjustment with levels of significance of .10, .05, .05, and .10, respectively. The only nonsignificant path was between social participation and alienation. Test for singularity of 1.45 with .01 level of significance means that all independent variables are independent.

To summarize, length of sojourn and social participation were significant in explaining socialization. Only socialization was important to explain role conflict whereas modernity was not. Social participation, socialization, and role conflict had significant direct effects upon role adjustment whereas length of sojourn had only an indirect effect through socialization upon role adjustment, and modernity was not important in explaining role adjustment. Variables which had significant direct effects upon alienation were length of sojourn, modernity, socialization, role conflict, and role adjustment. Social participation had no significant direct effect upon alienation but revealed some indirect effect through socialization, role conflict, and role adjustment. Length of sojourn also had an
indirect effect upon alienation through socialization, role conflict, and role adjustment. An indirect effect of socialization upon alienation was through role conflict and role adjustment. Finally, role conflict had its indirect effect upon alienation through role adjustment.

As far as a statistical significance of paths in path model is concerned, Duncan (1966) suggests:

Had some of the b's turn out both nonsignificant and negligible in magnitude, one could have erased the corresponding paths from the diagram and run the regression over, retaining only those independent variables found to be statistically and substantially significant (p. 7).

Based upon the above suggestion, it was decided that all four nonsignificant paths, i.e. those of length of sojourn to role adjustment, modernity to role conflict, modernity to role adjustment, and social participation to alienation, should be deleted from the model. The revised path model of sojourner alienation was based upon the significant paths revealed by the errors-in-variables technique as described and discussed above and will be presented in the following section. Some objection has been raised with this approach since the same data were used to examine both the original model and the revised model. However, the procedure is considered acceptable in exploratory studies (Faisal and Warren, 1978a). This study is exploratory in nature; it is thus justifiable to employ such a procedure.

This procedure insulted in a modification of the original path model. Recursive equations representing the modified path model are as follows:

\[ X_1 = e_1 \]
\[ X_2 = e_2 \]
\[ X_3 = e_3 \]
\[ X_4 = b_{41.3}X_1 + b_{43.1}X_3 + e_4 \]
\[ X_5 = b_{54}X_4 + e_5 \]
\[ X_6 = b_{63.45}X_3 + b_{64.35}X_4 + b_{65.34}X_5 + e_6 \]
\[ X_7 = b_{71.2456}X_1 + b_{72.1456}X_2 + b_{74.1256}X_4 + b_{75.1246}X_5 + b_{76.1245}X_6 + e_7 \]

Partial regression and standardized regression coefficients (path coefficients) were computed. Results of the relationships between the independent variables and the dependent variables employing the errors-in-variables approach are presented in Table 4.5, and the modified path model with path coefficients and residuals is presented in Figure 4c. It should be noted that the deletion of the nonsignificant paths causes change in the magnitude of the path coefficients of the relevant paths as well as the value of \( R^2 \), percent variance explained.

Considering role adjustment as a dependent variable after deleting paths from length of sojourn, and from modernity, the magnitude of path coefficient from social participation increases from .25 to .27. However, the path coefficients for socialization and for role conflict are roughly the same. The deletion of these nonsignificant paths to role conflict also causes change of \( R^2 \) from .75 to .74 percent.

The deletion of nonsignificant paths also affects the magnitude of path coefficients and \( R^2 \) for the independent variables as related to alienation. On the one hand, this causes the path coefficient between role adjustment and alienation to increase significantly from -.36 to -.41. The path coefficient between socialization and alienation increases from -.17 to -.19. On the other hand, the deletion causes reduction in the path
Table 4.5. Partial regression coefficients, t-values, path coefficients, and percent variance explained ($R^2$) in the modified model

<table>
<thead>
<tr>
<th>Dependent and independent variables</th>
<th>Partial regression coefficient</th>
<th>&quot;t&quot; value</th>
<th>Standardized regression coefficient (path coef.)</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_4$ -socialization</td>
<td></td>
<td></td>
<td></td>
<td>.16</td>
</tr>
<tr>
<td>$X_1$ -length of sojourn</td>
<td>.04</td>
<td>1.297*</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>$X_3$ -social participation</td>
<td>.33</td>
<td>3.753*****</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>$X_5$ -role conflict</td>
<td></td>
<td></td>
<td></td>
<td>.18</td>
</tr>
<tr>
<td>$X_4$ -socialization</td>
<td>-.35</td>
<td>-4.209*****</td>
<td>-.42</td>
<td></td>
</tr>
<tr>
<td>$X_6$ -role adjustment</td>
<td></td>
<td></td>
<td></td>
<td>.74</td>
</tr>
<tr>
<td>$X_3$ -social participation</td>
<td>.14</td>
<td>3.147*****</td>
<td>.27</td>
<td></td>
</tr>
<tr>
<td>$X_4$ -socialization</td>
<td>.11</td>
<td>1.696**</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>$X_5$ -role conflict</td>
<td>-.47</td>
<td>-7.576*****</td>
<td>-.67</td>
<td></td>
</tr>
<tr>
<td>$X_7$ -alienation</td>
<td></td>
<td></td>
<td></td>
<td>.65</td>
</tr>
<tr>
<td>$X_1$ -length of sojourn</td>
<td>.06</td>
<td>1.358*</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>$X_2$ -modernity</td>
<td>.75</td>
<td>1.718**</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>$X_4$ -socialization</td>
<td>-.42</td>
<td>-1.776**</td>
<td>-.19</td>
<td></td>
</tr>
<tr>
<td>$X_5$ -role conflict</td>
<td>.86</td>
<td>1.830**</td>
<td>.31</td>
<td></td>
</tr>
<tr>
<td>$X_6$ -role adjustment</td>
<td>-.61</td>
<td>-1.860**</td>
<td>-.41</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .10$.

** $p < .05$.

**** $p < .005$.

***** $p < .0005$. 


Figure 4c. The modified path model of sojourner alienation

\[ R^2 = .65 \]

\[ * \text{Residual (} \sqrt{1-R^2} \text{)} \]
coefficients of modernity and role conflict from .18 to .17 and from .35 to .31, respectively. However, the magnitude of the path coefficient remains roughly the same for the path from length of sojourn to alienation. The value of $R^2$ is also decreased after the deletion of the nonsignificant paths from .66 percent to .65 percent.

It should be noted that path coefficient is an indication of a direct effect of an independent variable upon its corresponding dependent variable. And since it is measured in a standardized form (to have a mean of zero and common variance of unity), those path coefficients for the paths leading to the same dependent variable can be compared for a better understanding of their relative direct effects in producing the variance in the same dependent variable. A discussion of interrelationships among the variables in the model and their relative effects is presented as follows:

First, length of sojourn and social participation have direct relationships with socialization. Their relative direct effects can be evaluated by comparing their path coefficients. It is interpreted that the relative effect of social participation is more than three times of the direct effect of length of sojourn upon socialization. The $R^2$ value is .16 meaning that these two variables account for 16 percent of the variance in socialization. Certainly, the errors-in-variables specification test suggested that these two variables were not sufficient for the explanation of the variance in socialization.

Second, considering role conflict as a dependent variable, the modified model suggests that socialization alone contributes significantly to the explanation of role conflict as this variable alone accounts for 18 percent of the variance in role conflict. However, this amount of
explained variance is partly due to indirect effects of length of sojourn and social participation through socialization, since the two variables produce 16 percent of the variance in socialization. Although it was found that socialization was important in explaining role conflict, specification test revealed that it was not sufficient to account for the variance in role conflict.

Third, social participation, socialization, and role conflict have significant direct effects upon role adjustment. Comparing their relative effects, it is revealed that role conflict has a strongest effect upon role adjustment as its effect is more than twice the effect of social participation and more than three times the effect of socialization upon the same dependent variable. Social participation has stronger effect than socialization. Interestingly enough, the modified model suggests that these three variables significantly contribute to the explanation of role adjustment as almost three-quarters of the variance in role adjustment are accounted for by these variables ($R^2 = .74$).

However, it should be noted that both length of sojourn and social participation also have some part in producing the variance in role adjustment through their indirect effects, i.e. through socialization and role conflict. The case that three variables can account for more than 74 percent of the variance in a dependent variable is considered rather impressive. However, the specification test for this equation revealed that they were not sufficient to explain the variance in role adjustment.

Finally, length of sojourn, modernity, socialization, role conflict, and role adjustment have direct effects upon alienation. Among all
variables, role adjustment has the strongest effect as it has path coefficient of -.41, and length of sojourn has the least effect upon alienation. The direct effect of role adjustment upon alienation is more than four times the direct effect of length of sojourn and more than twice of the effects of modernity and of socialization. Role conflict has the second strongest effect upon alienation as its direct effect is almost twice of the effect of modernity and more than three times of the direct effect of length of sojourn.

Although social participation reveals no direct effect upon alienation, its indirect effect is evident through socialization and role adjustment as well as through role conflict from socialization and through role adjustment from socialization through role conflict. In addition, length of sojourn also has an indirect effect upon alienation through socialization, through role adjustment from socialization, and through role adjustment from socialization through role conflict. Further, an indirect effect of socialization is through role adjustment, through role conflict, and through role adjustment from role conflict. Finally, role conflict also has its indirect effect upon alienation through role adjustment.

The combined effects of these six independent variables upon alienation after the deletion of the nonsignificant paths contribute more than 65 percent of the variance in alienation as compared to 66 percent before the deletion. The errors-in-variables specification test suggested that this set of variables was not sufficient for explaining the variance in alienation. There are still other important variables to be included in the model.
To look at the matter in another way, in terms of score variance, the errors-in-variables approach gives the estimated score variance in terms of the amount of explained variance ($S^2_{\text{exp'd}}$), measurement error variance ($S^2_{\text{m.e.}}$), and specification error or unexplained variance corrected for measurement error ($S^2_q$). This is presented in Table 4.6 and Figure 4d.

Table 4.6. Observed variance, measurement error variance, explained variance, and specification error

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Observed variance ($S^2_{\text{obs'd}}$)</th>
<th>Measurement error variance ($S^2_{\text{m.e.}}$)</th>
<th>Explained variance ($S^2_{\text{exp'd}}$)</th>
<th>Specification error variance ($S^2_q$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_4$-socialization</td>
<td>36.3933</td>
<td>6.5981</td>
<td>5.2857</td>
<td>24.5095^a</td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td>25.1446</td>
<td>4.2193</td>
<td>3.6745</td>
<td>17.2508^a</td>
</tr>
<tr>
<td>$X_6$-role adjustment</td>
<td>15.2221</td>
<td>5.1588</td>
<td>7.4428</td>
<td>2.6205^b</td>
</tr>
<tr>
<td>$X_7$-alienation</td>
<td>178.3477</td>
<td>21.5979</td>
<td>102.4360</td>
<td>54.3138^b</td>
</tr>
</tbody>
</table>

^aSignificant at .001.
^bSignificant at .01.

These variances can be calculated by the following formulas:

\[ S^2_{\text{exp'd}} = (S^2_{\text{true Y}})(R^2_{\text{true Y on true X}}) \]  
\[ S^2_q = S^2_{\text{true Y}} - S^2_{\text{exp'd}} \]  
\[ S^2_{\text{obs'd}} = S^2_{\text{exp'd}} + S^2_q + S^2_{\text{m.e.}} \]
Figure 4d. The modified path model of sojourner alienation with score variances

\( S^2_q \): Specification error variance
\( S^2_{\text{m.e.}} \): Estimated measurement error variance
\( S^2_{\text{obs'd}} \): Observed variance

\( 17.2508 \) and \( 4.2193 \) are not specified in the diagram.
Considering socialization (SOCLZ), for instance,

The explained variance = (29.7952)(.16)

= 4.8745

The specification error = 29.7952 - 4.8745

= 24.9207

From Table 4.3, we knew observed variance and measurement error variance. Thus,

\[ S_{obs'd}^2 = S_{exp'd}^2 + S_{q}^2 + S_{m.e.}^2 \]

36.3933 4.8745 24.9207 6.5981

(100%) (13%) (68%) (18%)

The results reveal that of 36.3933 of observed score variance for socialization, the explained variance is 4.8745, the unexplained variance is 24.9207, and measurement error variance is 6.5981. In other words, of total observed score variance, 13% is the explained variance, 18% is the measurement error variance, and 68% of the total variance is left unexplained.

For role conflict (RLCNF), the results suggest that of 25.1446 of the observed variance, 3.6745 or 15% is the explained variance, 4.2193 or 17% is the measurement error variance, and 17.2508 or 69% is the unexplained variance.

By the same token, for role adjustment, we know that of the total variance of 15.2221, 7.4428 or 49% are explained, 5.1588 or 34% is the measurement error variance, and only 2.6205 or 17% is left unexplained.

Finally, of the total observed variance in alienation of 178.3477, 21.5979 or 12% is the measurement error variance, 102.4360 or 57% is the
variance explained by the model, and 54.3138 or 30% is the unexplained variance.
CHAPTER V. SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter presents a summary, conclusions, and implications of the study of sojourner alienation using foreign student population as a case in point. The first section will be a summary of the study, followed by conclusions from the results of the study. The implications from the findings will be discussed in three separated but related aspects: theoretical, methodological, and practical implications. This will be presented in the last section.

Summary

This dissertation is an attempt to examine a social phenomenon of sojourner alienation. Alienation was generally defined as a negative orientation involving feelings of discordance and cynical beliefs toward a specific social context. The unit of analysis of the study is thus the individual. As stated in Chapter I, the objectives of this dissertation were: (1) to investigate selected social correlates of alienation to get a general description of its relationships with social background variables; (2) to construct an exploratory causal model of sojourner alienation based solely upon theoretical reasoning (since there has been almost no research done on this phenomenon); (3) to apply the causal model to a sample of foreign student population at Iowa State University; and (4) to investigate degree of variation in foreign student alienation that can be explained and/or predicted by the model using path analysis and errors-in-variables approach.

In Chapter II, general conception of alienation was briefly described and discussed by tracing back to its origin. Special attention was paid to
its conception in traditional as well as in contemporary sociology. It was found that, in contemporary sociology, alienation has been conceived as a syndrome, i.e. having several dimensions. In this chapter research findings on social correlates of alienation in general were briefly reviewed. It was found that patterns of relationships between social background variables and alienation were not clear, i.e. though some relationships were found, they were not consistent.

It was argued that most research on alienation treated alienation as a negative feeling toward society as a whole rather than toward a specific social context which has been recently perceived as more relevant to the issue. Accordingly, in this dissertation we adopted a context-specific approach. Another finding from the review of literature was that most research was done on a basis of bivariate correlation analysis and in many cases without control variables. Therefore, the findings from these provide little insight into the phenomenon of alienation. In order to improve this situation, this dissertation is an attempt to construct a causal model of sojourner alienation to investigate causal relationships between antecedent factors and alienation. This was expected to provide more insight into the phenomenon than the simple correlational analysis.

Since there has been little research on sojourner alienation, the causal model was constructed solely on theoretical reasoning. In a process of theory construction, various theoretical perspectives relevant to the subject of interest were investigated and then integrated into a single theoretical causal model. This was done by a backward formulation, i.e. tracing relationships from alienation backward to antecedent factors. From this method, six concepts were included in the causal model as antecedent
factors. These six concepts are: (1) role adjustment, a process whereby a sojourner alters his/her role performance in terms of the demands of social situation or of significant others of the host social system; (2) role conflict, a perception of discrepancy between the sojourner's perceived role—expectations of significant others of the host social system—and his/her preferred role—those expected by himself/herself and/or by significant others from the same original social system; (3) socialization, transmission of social knowledge essential for social life in the host social system; (4) modernity, a set of attitudes, values, and ways of feeling required for effective participation in a modern society; (5) social participation; and (6) length of sojourn.

The causal model of sojourner alienation was presented in Figure 2f. From this causal model, 14 bivariate relationships were also hypothesized for testing.

Chapter III presents methodological aspects of the dissertation. Thirty percent of foreign student population at Iowa State University were systematically drawn constituting a sample size of 356. The sample represents the seven largest national groups. The actual size of the sample used in the analysis is 177. Fourteen social background variables were operationalized for the analysis of social correlates of alienation. For the variables in the causal model, all except length of sojourn were operationalized and measured by Likert-type scales. Items in the Alienation Scale were adapted from various established scales. Items in the Role Conflict Scale and the Modernity Scale were also adapted from established scales. The Role Adjustment Scale, the Socialization Scale, and the Social Participation Scale were specifically constructed for this study by the
author. All scales were analyzed for their functional unity, reliability and validity. The Alienation Scale has a reliability coefficient (alpha) of .88. Reliability coefficients for the Role Adjustment, the Role Conflict, the Socialization, the Social Participation, and the Modernity scales are .66, .83, .82, .84, and .61, respectively.

Chi-square, Gamma, and/or zero order correlation were employed for the analysis of social correlates of alienation. Correlation corrected for attentuation was used for the analyses of bivariate relationships among the variables in the causal model. Finally, in testing the causal model, path analysis was employed with errors-in-variables approach using a Super Carp Program constructed by the Statistics Department at Iowa State University.

Chapter IV involves the analysis of the data and findings. For the analysis of social correlates of alienation, it was found that only four out of 14 hypothesized relationships were statistically supported. Age was found having a slight positive relationship with alienation. A moderate negative relationship was found between perceived social status and alienation. Also, perceived status change was found negatively correlated with alienation, i.e. those who perceived an upward mobility tended to feel less alienated than those who perceived no mobility and those who perceived downward mobility. However, social status of parent had no relationship with alienation. A slight negative relationship was found between religiosity and alienation, but religious membership revealed no relationship with alienation. No relationship was found between sex, marital status, field of study, and level of education and alienation. None of the hypothesized relationships between financial situation, type of residence, country of origin, and language competency and alienation was found.
The next section was the test of the bivariate relationships among the variables in the causal model. Ten out of 14 hypothesized relationships were supported. A summary of the findings is as follows:

1. A negative causal relationship was found between role adjustment and alienation.
2. The hypothesized positive causal relationship between role conflict and alienation was confirmed.
3. There was a negative relationship between role conflict and role adjustment.
4. It was found that if socialization was high, then alienation would be low.
5. The hypothesized positive relationship between socialization and role adjustment was supported.
6. It was found that social participation was negatively related to alienation.
7. There was a significant positive relationship between social participation and role adjustment.
8. It was found that if social participation was high, then socialization would be high.
9. The hypothesized negative causal relationship between modernity and alienation was not supported.
10. Modernity was found positively related to role adjustment.
11. No significant relationship was found between modernity and role conflict.
12. The hypothesized negative relationship between length of sojourn and alienation was not confirmed.
13. It was found that there was no relationship between length of sojourn and role adjustment.

14. Length of sojourn was found positively related to socialization. As far as the tests of significance of path coefficients in the path model are concerned, it was found that 11 out of 15 hypothesized paths were significant. The nonsignificant paths were those of modernity and role conflict, modernity and role adjustment, length of sojourn and role adjustment, and social participation and alienation.

It was interpreted that although having no direct effect upon role adjustment, length of sojourn had an indirect effect through socialization and role conflict. By the same token, social participation was interpreted as having an indirect effect upon alienation through socialization, role conflict, and role adjustment.

The four nonsignificant paths were then deleted from the causal model. A revised causal model was constructed based upon the significant paths. The modified path model was reanalyzed. A brief summary of the results of the analysis is presented below.

1. Length of sojourn and social participation contributed significantly in explaining and/or predicting socialization. Social participation had a stronger direct effect. However, these two variables could explain only 16 percent of the variance in socialization.

2. Socialization had a strong direct effect upon role conflict as this variable alone could explain about 18 percent of the variance in role conflict. Length of sojourn and social participation also had some indirect effect upon role conflict through socialization.
3. Social participation, socialization, and role conflict contributed significantly to the explanation and/or prediction of role adjustment as these three variables could directly explain over 74 percent of the variance in role adjustment. In addition, length of sojourn and social participation were interpreted as having some indirect effects upon role adjustment through socialization and role conflict.

4. Length of sojourn, modernity, socialization, role conflict, and role adjustment directly contributed to the explanation and/or prediction of alienation. Among them role adjustment revealed the strongest direct effect upon alienation. The second strongest effect was that of role conflict, and length of sojourn had the least direct effect upon alienation. Length of sojourn as well as social participation, socialization, and role conflict also revealed indirect effects upon alienation. In sum, the model could explain over 65 percent of the variance in alienation.

Conclusions

Social correlates of alienation

In this study, 15 hypothesized relationships involving social correlates of alienation were analyzed. Only four bivariate relationships were significant. These social background variables were age, social status, status change, and religiosity. However, it should be noted that the sample collected is small and thus did not allow any usage of control variables, in addition to its limitations in associational analysis of variables which are mostly at nominal level. For instance, many cells in crosstab tables contained a frequency only of single digit. The results from this analysis should thus not be taken as a "hard" evidence. The
results seem to add further complication to the already confusing and contradictory findings involving social correlates of alienation. One conclusion that could be implied to this chaotic situation is that although studies involved the same concept, different conceptions and measurements were employed. Conceptually, the only consensus among sociologists on the concept of alienation seems to be that the concept is misused, abused, and misconstrued! The conception of alienation is so confusing that some sociologists suggest that the term "alienation" be dropped altogether (Israel, 1971)! Since there are various conceptions or dimensions of alienation, researchers employ different conceptions and indicators in their studies. In fact, findings from research employing different conceptions and indicators are not comparable at all. The contradictions in research findings are, therefore, probably due to this fact.

Further, in general, alienation was operationalized to measure negative feeling toward society as a whole, but this was applied to various groups of people. The findings could vary depending upon the degree of relevancy of the particular group toward society as a whole. Objection has been raised for such a practice since it seems less relevant to the subjects under study. The more appropriate approach is to measure alienation toward a particular social context relevant to the subject under study.

It is concluded that in order to improve the situation, future alienation studies should be done on the basis of at least a common conception of alienation, using a context-specific approach, and idealistically more replication studies should be done.
A causal model of sojourner alienation

Based upon path analysis technique employing the errors-in-variables method, the causal model was tested. Of 15 hypothesized paths, 11 had been supported. The four nonsignificant paths were deleted. The revised model was constructed on the basis of the significant paths. It was found that the revised model could explain about 65 percent of the variance in alienation, a residual ($\sqrt{1-R^2}$) was .59. The ability of the model to account for over 65 percent of the variance in the dependent variable is considered impressive.

However, to evaluate this causal model by comparing it with other path analyses is misleading, since the path analysis in this study employed the errors-in-variables method, whereas most of path analyses in sociology use the least squares method. Fortunately, this study also employed the least square method for this comparison purpose (see Appendix I for results of path analysis using the ordinary least square method). The results form the least square method reveal that the model could explain over 51 percent of the variance in alienation with a residual of .70.

Miller and Stokes (1975) examined research findings using path analysis published in five leading sociological journals during a period of 1966 to 1973 and found that for average number of 5-6 variables included in the model, the average residual was .80. It was also found that only 28 percent of models had a residual less than .75. The path model in this study is thus above average since it has a residual of only .70; this means that it could be one of the only 28 out of 100 models that had a residual less than .75.
It is thus concluded that the revised causal model of sojourner alienation is the "better-than-average" model. This revised causal model is presented in its theoretical format in Figure 5a.

Implications

Theoretical implications

The theoretical implications from this study can be described as follows:

First, as a general theoretical model, this study has proved that using a synthesizing technique for theory construction, as suggested by Hage (1972), does work even in a popular but confusing perspective such as alienation. It is interesting to note that the causal model of sojourner alienation has been constructed on a basis of sheer theoretical reasoning with almost no empirical basis, but its goodness of fit with the empirical data is above average. This result could be as an "encouraging" factor for young sociologists to adopt the method in their theory construction.

In addition, construction of a causal model especially for path analysis provides better understanding of the phenomenon under study than a general correlation approach such as that for an analysis of social correlates of alienation. Causal ordering of variables provides better insights into a complex network of interrelationships among variables and thus more appropriate to understanding involved social phenomena.

Second, as far as the substantive aspect is concerned, this study attempted to investigate alienation in a foreign student population—"sojourners." This study hopefully will be regarded as only an initial move toward the explanation of alienation among this special group of
Figure 5a. A revised causal model of sojourner alienation
individuals; they are special in the sense that they have a "temporary" membership within a given social system. Therefore, a general theoretical model of alienation seems inappropriate, as the "goodness of fit" of empirical data to the theory might well be low. In other words, a theoretical model useful to the explanation of alienation among permanent members of a given social system is not relevant to this group of temporary members. A new set of variables and/or a new theoretical model are needed.

The causal model of sojourner alienation constructed for this study seems to work well, thus is useful to explain and/or predict sojourner alienation.

Further, the causal model of sojourner alienation provides a fruitful theoretical approach for an investigation of a concrete phenomena, such as problems of interaction and adjustment of international students in a foreign country. With minor modification, this model could be used to analyze other special groups such as refugees or immigrants.

Third, despite the fact that the causal model of sojourner alienation constructed in this study could explain about 65 percent of the variance in alienation among the foreign student sample, it is still not sufficient. As suggested by the specification test, other additional, major variables need to be included in the model to account for the variance left unexplained.

**Methodological implications**

The methodological implications from this study can be stated as follows:
First, as stated earlier, a social phenomenon is too complicated to be handled adequately by a simple bivariate correlation analysis. This study proves that a causal model with path analysis provides a more comprehensive approach to the phenomenon of alienation in general or sojourner alienation in particular. Not only does path analysis provide insights into causal relationships among variables included, but it also provides information about relative magnitudes of the independent variables so that a comparison of their effects upon the dependent variables can be made. Further, indirect effects of the dependent variables upon the dependent can also be inferred. These information cannot be generated by a simple bivariate correlation analysis.

Second, usage of the errors-in-variables method in path analysis proves to be more effective in offering insights into the interrelationships among variables than the conventional ordinary least-square method. On the one hand, although the ordinary least-square method can provide information about an explained variance as well as a residual, it cannot differentiate real residual from measurement errors. On the other hand, the errors-in-variables method can provide information about an explained variance and an unexplained variance after correction for measurement errors, thus providing more realistic estimate of explained and unexplained variances accounted for by a particular model. Further, the errors-in-variables approach can provide exact scores of estimated explained, unexplained, and measurement error variances. The errors-in-variables method is thus more effective for path analysis than the ordinary least-square method. If a computer program to handle a complexity of this method such
as the "Super Carp" is available, the errors-in-variable should be used instead of the ordinary least-square method.

Third, it should be noted that the data used in this study were collected from the foreign student population at one midwest state university, the sample size is small and used a disproportionate stratified sampling technique. This might have some limitations as far as generalization is concerned. Data for future research on this phenomenon of sojourner alienation using foreign student population should be collected on a regional or, idealistically, a national basis.

In order to move toward a verification as well as a standardization of measuring instruments, replication studies are also needed.

Finally, one important assumption of path analysis is that the measuring instruments used in obtaining data have high reliability (Heise, 1969). In this study, scales measuring role adjustment and modernity have relatively low reliability (.66 for role adjustment and .61 for modernity scales). This might have some effects upon the analysis of the data in this study. For future studies, more reliable instruments measuring role adjustment and modernity are needed.

A final word in regard to the methodological aspect is that although path analysis as an analytical technique has proved to be a very effective tool, its application is by no means unlimited. In order to employ path analysis in their studies, researchers should make sure that the model to be examined is substantively or theoretically grounded and that all its important assumptions have been met. Otherwise, it might turn out to be the case like Kaplan's law of instrument: "Give a small boy a hammer, and
he will find that everything he encounters needs pounding" (Kaplan, 1964: 28).

**Practical implications**

As pointed out by Reynolds (1971), aside from providing typology, prediction and explanation, and sense of understanding, another purpose of scientific knowledge is providing the potential for control. The results from this study have practical implications at least for those who are involving in dealing with problems of interaction and adjustment of foreign students. The results of this study reveal that role adjustment, role conflict, and socialization have the strongest direct effects upon alienation. Thus, if these three variables could be manipulated, alienation of foreign students could be controlled. The results also suggest that social participation has a relatively strong effect upon socialization and role adjustment. From these findings, we conclude that if a high level of social participation could be induced, it would result in a high level in socialization and an increase in role adjustment. In turn, socialization would reduce role conflict and increase role adjustment (Figure 5a).

To conclude, reduction in foreign student alienation can be induced by employing some measures or methods to increase levels of social participation and socialization. This could be done, for instance, by increasing opportunities for foreign students to participate more with Americans. For example, requiring a host family and/or an American roommate would provide opportunity for participation and socialization in the student's new environment. Of course, being a participating "host" should be voluntary, otherwise a negative result might well follow. In addition, more programs
and/or workshops involving orientation to American culture should be initiated. Many other means undoubtedly could be employed. The point is that in order to reduce alienation among foreign students, various measures should be initiated to increase levels of social participation, socialization, role adjustment, and decrease role conflict.
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Barakat, Halim

Bertrand, A. L.

Blauner, Robert

Bohrnstedt, G. W.

Boyle, R. P.

Braun, D. D.

Breitenbach, D.


Costner, H. L.  


Cronbach, L. J.  

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Denzin, Norman K.  

Desta, A.  

Direnzo, G. J.  

Du Boise, C.  

Duncan, Otis D.  
Durkheim, Emile

Edwards, A. L.

Etzioni, Amatai

Faisal, Caroline Sue

Faisal, C. S. and R. D. Warren


Fischer, C. S.

Fromm, E.

Gerth, H. H. and C. W. Mills (eds.)

Goffman, I.

Goode, William J.

Gough, H. G.
Green, M. E.  

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Hage, Jerald  

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Julian, Alfred C. and R. E. Slattery


Kaplan, Abraham

Keniston, Kenneth

Kon, Igor S.

Kuhn, Manford H.

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Mulford, C. L., G. E, Klonglan, and P. F. Schmitz

Natanson, M.

Neal, Arthur G. and H. T. Groat

Neal, A. G. and S. Rettig


Nisbet, Robert A.
Olsen, Melvin E.  

Otto, L. B. and D. L. Featherman  

Parsons, Talcott  

Peled, M.  

Plasek, Wayne  

Powell, W. D., II  

Reynolds, Paul D.  

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Whyte, D. R.  
Wiepert, G. D.

Wright, Sewall
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Finally, this dissertation and educational success would not have been possible without sacrifice and moral support of the author's wife, Pornpimol. Deepest appreciation is expressed to her.
APPENDIX A:

LETTER TO RESPONDENTS
Dear Friend:

You have been randomly selected from the foreign students at Iowa State University to participate in a study of foreign student attitudes, research in partial fulfillment of the requirements for my degree. As you know, foreign students encounter adjustment problems due to stresses and strains of living in a culturally foreign land.

This research seeks to provide insights into lives of foreign students; their feelings about situations and conditions in this college community. The findings of this research could be useful for agencies responsible for their welfare.

Your participation is important because your responses will be regarded as representative of foreign students as a whole. It will take you only about 15 minutes or so to complete this questionnaire. Your cooperation is voluntary. It should be noted that all responses will be held in the strictest confidence and used only for sociological research. As a matter of fact, there will be no way of knowing which questionnaire is yours since your name is not required and no identifiers are placed on the questionnaire.

The success of this research depends upon you by giving complete and honest answers, otherwise, it will lead to distorted findings which are useless for everyone.

After completing the questionnaire, fold it in half, staple, and have it ready to be picked up by the student who delivered it to you or if your questionnaire has stamps on the back, please return by mail. In addition, if you would like to receive a summary of the findings, write your name on a separate sheet so that it won't become your identifier on the questionnaire. It will be sent to you after the completion of this research.

If you have any questions or suggestions, please feel free to write or call me. Thank you very much for your kind cooperation, it is deeply appreciated!

Pongswat Swatdipong
Graduate Student in Sociology
Office phone: 294-8012
Home phone: 292-4963

P.S. Please return the questionnaire because this research cannot be done without adequate data.
APPENDIX B:

QUESTIONNAIRE
FOREIGN STUDENT ATTITUDE QUESTIONNAIRE

General Directions: If you have not already done so, please read the attached letter which explains the general purpose of the study which you are about to participate in. Please read all instructions carefully. It is important that you answer all questions and that you do not discuss them with anybody else. Your answers are anonymous and will be used for research only.

Directions: Below are some statements about which people differ widely. This is not a test. There is no right or wrong answers. All of the statements are matters of opinion, so give your initial reaction quickly without wasting your time looking for some clues to answers. Please read each statement and give your reaction by circling the letter(s) corresponding to the response that best fits you.

Circle SA - if you strongly agree with the statement
A - if you agree with the statement
U - if you are uncertain about the statement
D - if you disagree with the statement
SD <= if you strongly disagree with the statement

Example: 1. I enjoy going to the movies. SA A U D SD

1. Most of the time I feel that foreign students have an effective voice in the decision regarding their destiny in this university. SA A U D SD

2. Foreign students in this university can get what they want without breaking rules. SA A U D SD

3. My experience in this university has been without any meaningful relationship with Americans. SA A U D SD

4. It is only wishful thinking to believe that foreign students can influence what happens in this university. SA A U D SD

5. In this university, things are so complicated that sometimes I really don't know what is going on. SA A U D SD

6. American people here in this university are just naturally friendly and helpful. SA A U D SD

7. Life in this university is so complicated that sometimes a foreign student like me doesn't know where to turn. SA A U D SD

8. The faculty has too much control over the lives of foreign students. SA A U D SD

9. In this university, it is easy to make many American close friends that you can really count on. SA A U D SD
10. The longer I am in this university, the more I feel how little control I have over things that happen here.

11. Here, everything is so relative that foreign students just can't live by definite rules.

12. My experiences here in this university really make a lot of sense.

13. In this university, the end often justifies the means.

14. Foreign students can always find American friends here if they show themselves friendly.

15. Sometimes it is difficult to know what professors will do from day to day.

16. A foreign student here has only a slim chance of protecting his/her interest if it is in conflict with that of the university.

17. Even though my stay in this university is temporary, I feel that I am an integral part of it.

18. Situations in this university are so confusing that sometimes I really don't know what is going on.

19. There is no use for foreign students to vote in student elections since their votes don't count very much anyway.

20. There is much that foreign students can actually do to improve their welfare in this university.

21. There are no definite rules in this university that foreign students can really count on.

22. To be successful in this university, sometimes foreign students are almost forced to do some things which are not right.

23. Sometimes I feel that some forms of protest are necessary for foreign students to have their view heard.

24. The bureaucracy of this university often makes me confused and bewildered.

25. The only thing that foreign students here can be sure of is that they can be sure of nothing.
26. Sometimes I feel all alone in this university.  

27. In this university, sometimes some degree of "apple polishing" is necessary to get a good grade from some professors.  

28. Sometimes I feel that foreign students can drop out or drop dead and nobody here would care.  

29. Despite being a foreigner, I can act like Americans.  

30. I feel that I can do almost anything that American students here are expected to do.  

31. I can't stand the ways American typically treat each other.  

32. Sometimes I feel that I really can't do what professors expect of me.  

33. I can act naturally in associating with Americans.  

34. The ways American students behave in class irritate me so much that I couldn't even think of doing such things myself.  

35. I often feel that there is a wide gap between what a foreign student like me is expected to do and what I can actually do.  

36. I tend to feel uncomfortable when I am with a group of Americans.  

Directions: Due to differences in culture, a foreign student sometimes experiences conflicts between what people here (American students, professors etc.) expect him/her to do and what he/she or his/her fellow-countrypersons think he/she should do.

What is your reaction to the following statement?

37. I feel that I am expected to do things or tasks that do not fit my type.  

38. I am often expected to do things that tend to be accepted by one group but rejected by another.  

39. Things that I am expected to do here suit my values.  

40. I receive incompatible expectations from different groups of people.
41. I feel that what people here expect me to do is in conflict with what I myself or my fellow-countrymen here think I should do.  

42. At this university, what I think I should do and what other people expect of me are often two different things.  

43. I feel that I am often expected to do things that I think should be done differently.  

44. Despite associating with different groups of people, their expectations of me are always the same.  

Directions: People differ widely in their opinion about the following statements. What is your reaction to each statement?  

45. My preference is for the traditional way of doing things.  

46. A man can be truly good without having religion at all.  

47. Anyone can get ahead in life if he works hard enough.  

48. It is better to live for today and let tomorrow take care of itself.  

49. The traditional ways are not always the best; they need to be changed.  

50. I would like to live for a time in several foreign countries.  

51. Women should be treated as equals of men.  

52. A person should try to keep up with major events taking place all over the world.  

53. People should be treated equally no matter what their age.  

Directions: How often have you participated in the following activities with Americans? Please specify by marking (X) in the appropriate blank.  

Never Less than once a month About twice a month About once a week About several times a week About several times a week  

54. General discussion or conversation( ) ( ) ( ) ( ) ( )  

55. Eat a meal or have coffee ( ) ( ) ( ) ( ) ( )  

56. Visit each other's residence ( ) ( ) ( ) ( ) ( )
57. Play games or engage in sports

58. Go to movies, party, concert etc.

59. Join activity in student clubs (beside your national club)

60. Date

Directions: How would you describe the adequacy of your knowledge about the "proper" ways of behaving or doing things in this college community? Please specify your responses by marking (X) in the appropriate blank.

61. Professor-student relations

62. Student-student relations

63. Academic regulations

64. Administrative regulations

65. Friendships of the same sex

66. Friendships of the opposite sex

67. Immigration regulations

68. Law and other regulations for daily life

69. American customs

Directions: Please answer the following questions by supplying information requested and/or circling the number corresponding to the most appropriate word or phrase.

Example: Who are you?

American student 1

Foreign student 2

70. What is the most prominent source of such knowledge (item 61-69)?

American friends or acquaintances 1

Friends from your own country 2

"Teach-it-yourself" 3

"Orientation" programs or other direct sources from university 4

Other (.................................) 5

Please specify
71. How would you rate your ability to express yourself in the English language?

- Very poor: 1
- Poor: 2
- Average: 3
- Good: 4
- Excellent: 5

72. How would you rate your financial situation here?

- Very inadequate: 1
- Somewhat inadequate: 2
- Somewhat adequate: 3
- Adequate: 4
- Very adequate: 5

73. Based on a scale of 10, comparing your social status with other people here, how would you locate your social status in this college community?

- (circle) Low: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. High

74. Comparing your social status here with your social status when in your home country, how much change in your social status would you say when living here in this college community?

- Much lower: 1
- Somewhat lower: 2
- Roughly the same: 3
- Somewhat higher: 4
- Much higher: 5

75. Based on a scale of 10, what would you say was the social status of your family in your home community when you were growing up?

- (circle) Low: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. High

76. What is your sex?

- Male: 1
- Female: 2

77. What is your marital status?

- Single: 1
- Married: 2
78. What is your religion?

Catholic 1  Islam 4
Protestant 2  Hinduism 5
Buddhism 3  No religion 7
Other (please specify) 6

79. How does religion influence your life?

Very little 1  Much 3
Little 2  Very much 4

80. What is type of your residence?

Dormitory 1  University apartment 2
Private apartment 3  Other (please specify) 4

81. What is your class standing?

Underclassperson 1  M.A. or M.S. student 3
(Frsh. or soph.)
Upperclassperson 2  Ph.D. student 4
(Junr. or senr.)

82. What is your age (to your last birthday)? : .................

83. What is your major field of study? : .........................

84. What is your country of origin? : ..........................

85. What is type of your visa? : ................................

86. How long have you been in this university? : .......year(s)......month(s)

PLEASE LOOK BACK TO MAKE SURE YOU HAVE ANSWERED EVERY QUESTION YOU COULD.
Thank you very much for your cooperation, it is highly appreciated!

(Please feel free to write your comments on the space below. It could be helpful to my research.)

YOUR COMMENTS:
APPENDIX C:

ALIENATION SCALE (original)

Below are some statements about which people differ widely. This is not a test. There are no right or wrong answers. All of the statements are matters of opinion, so give your initial reaction quickly without wasting your time looking for some clues to answers.

Please read each statement and give your reaction by circling the letter(s) corresponding to the response that best fits you.

<table>
<thead>
<tr>
<th>Circle:</th>
<th>SA - if you strongly agree with the statement</th>
<th>A - if you agree with the statement</th>
<th>U - if you are uncertain about the statement</th>
<th>D - if you disagree with the statement</th>
<th>SD - if you strongly disagree with the statement</th>
</tr>
</thead>
</table>

| 1. | Most of the time I feel that foreign students have an effective voice in the decision regarding their destiny in this university. | 1 2 3 4 5 | SA | A | U | D | SD |
| 2. | Foreign students in this university can get what they want without breaking rules. | 1 2 3 4 5 | SA | A | U | D | SD |
| 3. | My experience in this university has been without any relationship with Americans. | 1 2 3 4 5 | SA | A | U | D | SD |
| 4. | It is only wishful thinking to believe that foreign students can influence what happens in this university. | 1 2 3 4 5 | SA | A | U | D | SD |
| 5. | In this university, things are so complicated that sometimes I really don't know what is going on. | 1 2 3 4 5 | SA | A | U | D | SD |
| 6. | American people here in this university are just naturally friendly and helpful. | 1 2 3 4 5 | SA | A | U | D | SD |
| 7. | Life in this university is so complicated that sometimes a foreign student like me doesn't know where to turn. | 1 2 3 4 5 | SA | A | U | D | SD |

1 Scores would be omitted when administered.

2 P=powerlessness; N=normlessness; M=meaninglessness; S=social isolation.

3 Dropped from the revised scale.
P 8. The faculty has too much control over the lives of foreign students.

S 9. In this university, it is easy to make many American close friends that you can really count on.

P 10. The longer I am in this university, the more I feel how little control I have over things that happen here.

N 11. Here, everything is so relative that foreign students just can't live by definite rules.

M 12. My experiences here in this university really make a lot of sense.

N 13. In this university, the end of ten justifies the means.

S 14. Foreign students can always find American friends here if they show themselves friendly.

M 15. Sometimes it is difficult to know what professors will do from day to day.

P 16. A foreign student here has only a slim chance of protecting his/her interest if it is in conflict with that of the university.

S 17. Even though my stay in this university is temporary, I feel that I am an integral part of it.

M 18. Situations in this university are so confusing that sometimes I really don't know what is going on.

P 19. There is no use for foreign students to vote in student elections since their votes don't count very much anyway.

P 20. There is much that foreign students can actually do to improve their welfare in this university.

N 21. There are no definite rules in this university that foreign students can really count on.

N 22. To be successful in this university, sometimes foreign students are almost forced to do some things which are not right.
23. Sometimes I feel that some forms of protest are necessary for foreign students to have their view heard.

24. The bureaucracy of this university often makes me confused and bewildered.

25. The only thing that foreign students here can be sure of is that they can be sure of nothing.

26. Sometimes I feel all alone in this university.

27. In this university, sometimes some degree of "apple polishing" is necessary to get a good grade from some professors.

28. Sometimes I feel that foreign students can drop out or drop dead and nobody here would care.
APPENDIX D:

ROLE ADJUSTMENT SCALE \(^1\) (original)

Below are some statements about which people differ widely. This is not a test. There are no right or wrong answers. All of the statements are matters of opinion, so give your initial reaction quickly without wasting your time looking for some clues to answers.

Please read each statement and give your reaction by circling the letter(s) corresponding to the response that best fits you.

Circle:  
SA - if you **strongly agree** with the statement  
A - if you **agree** with the statement  
U - if you are **uncertain** about the statement  
D - if you **disagree** with the statement  
SD - if you **strongly disagree** with the statement

29. \(^2\) Despite being a foreigner, I can act like Americans.  

5 4 3 2 1  
SA A U D SD

30. \(^2\) I feel that I can do almost anything that American students here are expected to do.  

5 4 3 2 1  
SA A U D SD

31. I can't stand the ways Americans typically treat each other.  

1 2 3 4 5  
SA A U D SD

32. Sometimes I feel that I really can't do what professors expect of me.  

1 2 3 4 5  
SA A U D SD

33. I can act naturally in associating with Americans.  

5 4 3 2 1  
SA A U D SD

34. The ways American students behave in class irritate me so much that I couldn't even think of doing such things myself.  

1 2 3 4 5  
SA A U D SD

35. I often feel that there is a wide gap between what a foreign student like me is expected to do and what I can actually do.  

1 2 3 4 5  
SA A U D SD

36. I tend to feel uncomfortable when I am with a group of Americans.  

1 2 3 4 5  
SA A U D SD

\(^1\)Scores would be omitted when administered.

\(^2\)Dropped from the revised scale.
APPENDIX E:

ROLE CONFLICT SCALE\(^1\) (original)

Due to differences in culture, a foreign student sometimes experiences conflicts between what people here (American students, professors, etc.) expect him/her to do and what he/she or his/her fellow countrymen think he/she should do. What is reaction to the following statements?

Circle:  
SA - if you strongly agree with the statement  
A - if you agree with the statement  
U - if you are uncertain about the statement  
D - if you disagree with the statement  
SD - if you strongly disagree with the statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>37. I feel that I am expected to do things or tasks that do not fit my type.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>38. I am often expected to do things that tend to be accepted by one group but rejected by another.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>39. Things that I am expected to do here suit my value values.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>40. I receive incompatible expectations from different groups of people.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>41. I feel that what people here expect me to do is in conflict with I myself or my fellow countrymen here think I should do.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>42. At this university, what I think I should do and what other people expect of me are often two different things.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>43. I feel that I am expected to do things that I think should be done differently.</td>
<td>5</td>
<td>4</td>
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<td>44.(^2) Despite associating with different groups of people, their expectations of me are always the same.</td>
<td>1</td>
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<td>4</td>
<td>5</td>
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\(^1\)Scores would be omitted when administered.

\(^2\)Dropped from the revised scale.
APPENDIX F:
SOCIALIZATION SCALE

How would you describe the adequacy of your knowledge about the "proper" ways of behaving or doing things in this college community? Please specify your responses by marking (X) in the appropriate blank.

<table>
<thead>
<tr>
<th></th>
<th>1 Very inadequate</th>
<th>2 Somewhat inadequate</th>
<th>3 Uncertain</th>
<th>4 Somewhat adequate</th>
<th>5 Very adequate</th>
</tr>
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<tbody>
<tr>
<td>61. Professor-student relations</td>
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<tr>
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<td>63. Academic regulations</td>
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<td>65. Friendships of the same sex</td>
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<tr>
<td>69. American customs</td>
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</table>

1Scores would be omitted when administered.
APPENDIX G:

MODERNITY SCALE\(^1\) (original)

People differ widely in their opinion about the following statements. What is your reaction to each statement?

45. My preference is for the traditional way of doing things.  
   1 2 3 4 5  
   SA A U D SD

46. A man can be truly good without having religion at all.  
   5 4 3 2 1  
   SA A U D SD

47.\(^2\) Anyone can get ahead in life if he works hard enough.  
   5 4 3 2 1  
   SA A U D SD

48.\(^2\) It is better to live for today and let tomorrow take care of itself.  
   1 2 3 4 5  
   SA A U D SD

49. The traditional ways are not always the best; they need to be changed.  
   5 4 3 2 1  
   SA A U D SD

50.\(^2\) I would like to live for a time in several foreign countries.  
   5 4 3 2 1  
   SA A U D SD

51. Women should be treated as equals of men.  
   5 4 3 2 1  
   SA A U D SD

52. A person should try to keep up with major events taking place all over the world.  
   5 4 3 2 1  
   SA A U D SD

53. People should be treated equally no matter what their age.  
   5 4 3 2 1  
   SA A U D SD

---

\(^1\)Scores would be omitted when administered.

\(^2\)Dropped from the revised scale.
APPENDIX H:
SOCIAL PARTICIPATION SCALE

How often have you participated in the following activities with Americans? Please specify by marking (X) in the appropriate blank.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Never</td>
<td>Less than once a month</td>
<td>Once or twice a month</td>
<td>About once a week</td>
<td>Several times a week</td>
</tr>
<tr>
<td>54.</td>
<td>General discussion or conversation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>Eat a meal or have coffee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56.</td>
<td>Visit each other's residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57.</td>
<td>Play games or engage in sports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58.</td>
<td>Go to movies, party, concert, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59.</td>
<td>Join activity in student clubs (besides your national club)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60.</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Scores would be omitted when administered.
APPENDIX I:

PATH ANALYSIS OF A CAUSAL MODEL OF SOJOURNER ALIENATION

(LEAST-SQUARE METHOD)
Table I.1. Partial regression coefficients, "t" values, path coefficients, and percent variance explained in the original path model of sojourner alienation (least-square method)

<table>
<thead>
<tr>
<th>Dependent and independent variables</th>
<th>Partial regression coefficient</th>
<th>&quot;t&quot; value</th>
<th>Standardized partial regression coefficient (path coef.)</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_4$-socialization</td>
<td></td>
<td></td>
<td></td>
<td>.12</td>
</tr>
<tr>
<td>$X_1$-length of sojourn</td>
<td>.04</td>
<td>1.512*</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>$X_3$-social participation</td>
<td>.28</td>
<td>4.280*****</td>
<td>.31</td>
<td></td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td></td>
<td></td>
<td></td>
<td>.12</td>
</tr>
<tr>
<td>$X_2$-modernity</td>
<td>-.08</td>
<td>-0.831</td>
<td>-.06</td>
<td></td>
</tr>
<tr>
<td>$X_4$-socialization</td>
<td>-.29</td>
<td>-4.574*****</td>
<td>-.35</td>
<td></td>
</tr>
<tr>
<td>$X_6$-role adjustment</td>
<td></td>
<td></td>
<td></td>
<td>.44</td>
</tr>
<tr>
<td>$X_1$-length of sojourn</td>
<td>.01</td>
<td>0.652</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>$X_2$-modernity</td>
<td>.07</td>
<td>1.180</td>
<td>.07</td>
<td></td>
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<tr>
<td>$X_3$-social participation</td>
<td>.12</td>
<td>3.347*****</td>
<td>.21</td>
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<tr>
<td>$X_4$-socialization</td>
<td>.10</td>
<td>2.448*****</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td>-.39</td>
<td>-8.039*****</td>
<td>-.50</td>
<td></td>
</tr>
<tr>
<td>$X_7$-alienation</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>$X_1$-length of sojourn</td>
<td>.08</td>
<td>1.722**</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>$X_2$-modernity</td>
<td>.42</td>
<td>2.039***</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td>$X_3$-social participation</td>
<td>-.21</td>
<td>-1.741**</td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>$X_4$-socialization</td>
<td>-.43</td>
<td>-3.127*****</td>
<td>-.20</td>
<td></td>
</tr>
<tr>
<td>$X_5$-role conflict</td>
<td>1.01</td>
<td>5.517*****</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>$X_6$-role adjustment</td>
<td>-.85</td>
<td>-3.396*****</td>
<td>-.25</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .10$.  
** $p < .05$.  
*** $p < .025$.  
**** $p < .01$.  
***** $p < .005$.  
****** $p < .0005$.  


Figure I.1. The original causal model of sojourner alienation

\[ R^2 = .51 \]

\[ ^a \text{Residual (} \sqrt{1-R^2} \text{).} \]

\[ ^* p < .10. \]

\[ ^** p < .05. \]

\[ ^*** p < .025. \]

\[ ^**** p < .01. \]

\[ ^***** p < .005. \]

\[ ^****** p < .0005. \]
Table I.2. Partial regression coefficients, "t" value, path coefficients, and percent variance explained in the revised path model of sojourner alienation (least-square method)

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<td>.31</td>
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<td>.12</td>
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<td>$X_5$-role adjustment</td>
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<td>3.590******</td>
<td>.22</td>
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<td>$X_4$-socialization</td>
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<tr>
<td>$X_5$-role conflict</td>
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<td>-.85</td>
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<td></td>
</tr>
</tbody>
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* $p < .10$.
** $p < .05$.
*** $p < .025$.
**** $p < .01$.
***** $p < .005$.
****** $p < .0005$. 
$R^2 = .51$

$^a$Residual ($\sqrt{1-R^2}$).

*p < .10.

**p < .05.

***p < .025.

****p < .01.

*****p < .005.

******p < .0005.

Figure I.2. The revised causal model of sojourner alienation
APPENDIX J:
UNCORRECTED CORRELATION MATRIX FOR VARIABLES
IN A CAUSAL MODEL OF SOJOURNER ALIENATION

Table J.1. Uncorrected correlation matrix for variables in a causal model of sojourner alienation

<table>
<thead>
<tr>
<th>Variable</th>
<th>ALIEN</th>
<th>RLADJ</th>
<th>RLCNF</th>
<th>SOCLZ</th>
<th>SOPAR</th>
<th>MODNT</th>
<th>LNGSJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALIEN</td>
<td></td>
<td></td>
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<td>RLADJ</td>
<td>-.5623</td>
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<td>RLCNF</td>
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<td>.4030</td>
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<td>SOPAR</td>
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<td>.0060</td>
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<td>.0651</td>
<td>.0828</td>
<td>.1481</td>
<td>.1233</td>
<td>.2424</td>
<td></td>
</tr>
</tbody>
</table>

*ALIEN=alienation; RLADJ=role adjustment; RLCNF=role conflict; SOCLZ=socialization; SOPAR=social participation; MODNT=modernity; LNGSJ=length of sojourn.