Toward a Phenomenology of Acculturation: An Investigation of Foreign Students' Perception of Competency Along Phenomenological Dimensions of Acculturation by Means of Guttman's Scalogram Analysis

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Title: Toward a Phenomenology of Acculturation: An Investigation of Foreign Students' Perception of Competency Along Phenomenological Dimensions of Acculturation by Means of Guttman's Scalogram Analysis.

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The acculturative process is a continuing process beginning at the moment of contact between peoples of different cultures. This process subsumes the acquisition of new traits from concrete elements to behavioral patterns to abstractions, a growth in perception, and socialization into
the host culture. The process is affected by other variables such as personality structure and national origin. Thus far, it has been difficult to find empirical studies which reveal how a person perceives and feels as he moves through these processes.

Three primary hypotheses were proposed to study this perceptual growth.

**Hypothesis 1.** Acculturation is a scalable construct along various posited phenomenological dimensions (i.e., perceptions and feelings about acculturation can be placed on a continuous scale which reflects and defines the processes of acquisition, growth, and socialization.)

**Hypothesis 2.** Acculturation is a factorially complex construct, an amalgam of sub-hierarchies along various phenomenological dimensions which may or may not be related to each other.

**Hypothesis 3.** Scaled self-reports of competency on given dimensions are related to actual behavior as reported in the literature of acculturation and in relation to other variables.

Three secondary hypotheses related to the third hypothesis above are (1) the perceived level of difficulty parallels the actual order of trait acquisition,
(2) perception of ability is not necessarily congruent with actual level of ability as evinced by amount of contact, and (3) other variables affect perception.

Data for the first hypothesis was gathered in three generations of testing as Guttman scales of nine phenomenological dimensions were administered at Portland State University and Lewis and Clark College (N = 150). When Guttman's Index of Reproducibility was determined, six quasi-scales of dimensions were found.

Pearson's r and Spearman's rho were computed to determine the relationships among these scales for generations 2 and 3. Some dimensions were independent, others were related. Kendall's Coefficient of Concordance: W was high for Generation 2 indicating that all dimensions were ultimately related to the construct, "acculturation."

Hypothesis 3 was tested with Generation 2 data (N = 45). Perceived level for difficulty paralleled actual level of difficulty of trait acquisition as determined in previous studies. However, it was found that a person's perception of his own level of ability was not always congruent with the actual level of ability: both J- and linear-curves were apparent for amount of contact over time (perception of ability was also affected by national origin and intentions of permanent residency). (X^2 tests and Kruskal-Wallis one-way analysis of variance.) With the exception of one scale perceived status level and perceived
ability to communicate were not related to scale scores.

Thus, "acculturation" is a complex phenomena. The perception of one's own acculturation accrues in hierarchical stair-steps along several dimensions. The perceptual stairs are built in the same order of least to most difficult as the actual acquisition of traits. Yet, due to the learning processes of differentiation/overgeneralization, the relationship between perceived and actual behavior as defined by time is sometimes linear, sometimes curvilinear depending on the dimension. Guttman scalogram analysis appears to be an appropriate technique for the study of this complex area although some refinement is needed.
TOWARD A PHENOMENOLOGY OF ACCULTURATION: AN INVESTIGATION
OF FOREIGN STUDENTS' PERCEPTION OF COMPETENCY ALONG
PHENOMENOLOGICAL DIMENSIONS OF ACCULTURATION
BY MEANS OF GUTTMAN'S SCALOGRAM ANALYSIS

by

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For my Family:

ad Majorem Dei gloriam
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGMENTS</th>
<th>iv</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xi</td>
</tr>
</tbody>
</table>

## CHAPTER

### I  BACKGROUND

- Overview                          | 1    |
- Introduction                       | 1    |
- Basic Theories of Acculturation    | 3    |
- Methods of Studying Acculturation  | 31   |
- Summary                            | 34   |

### II  BASIS FOR THE STUDY

- Introduction                       | 42   |
- Purpose                            | 42   |
- Assumptions                        | 43   |
- Method of Study                    | 44   |
- Theoretical Hypotheses             | 49   |
- Summary                            | 50   |

### III  METHODS AND PROCEDURES: GUTTMAN SCALOGRAM ANALYSIS

- Overview                          | 53   |
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicability of Scalogram Analysis to this Study</td>
<td>55</td>
</tr>
<tr>
<td>Uses of Scalogram Analysis</td>
<td>56</td>
</tr>
<tr>
<td>Measurement Types</td>
<td>59</td>
</tr>
<tr>
<td>The Theory of Scalogram Analysis</td>
<td>63</td>
</tr>
<tr>
<td>Criticisms</td>
<td>75</td>
</tr>
<tr>
<td>Summary</td>
<td>77</td>
</tr>
<tr>
<td>IV METHODS AND PROCEDURES: GENERAL PROCEDURES</td>
<td>81</td>
</tr>
<tr>
<td>Research Hypotheses</td>
<td>81</td>
</tr>
<tr>
<td>General Procedures</td>
<td>83</td>
</tr>
<tr>
<td>Summary</td>
<td>98</td>
</tr>
<tr>
<td>V RESULTS AND DISCUSSION: SCALABILITY</td>
<td>100</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>100</td>
</tr>
<tr>
<td>Results</td>
<td>101</td>
</tr>
<tr>
<td>Discussion</td>
<td>105</td>
</tr>
<tr>
<td>Summary</td>
<td>111</td>
</tr>
<tr>
<td>VI RESULTS AND DISCUSSION: THE CONSTRUCT, &quot;ACCULTURATION&quot;</td>
<td>113</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>113</td>
</tr>
<tr>
<td>Results</td>
<td>114</td>
</tr>
<tr>
<td>Discussion</td>
<td>118</td>
</tr>
<tr>
<td>VII RESULTS AND DISCUSSION: RELATIONSHIPS BETWEEN PERCEPTION AND OTHER VARIABLES</td>
<td>122</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>122</td>
</tr>
<tr>
<td>Results</td>
<td>124</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Discussion</td>
<td>153</td>
</tr>
<tr>
<td>VIII CONCLUSION</td>
<td>160</td>
</tr>
<tr>
<td>LIST OF REFERENCES</td>
<td>166</td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>A Instructions to Students for Generations 1 and 3, Demographic Data, Scales for Generation 1</td>
<td>173</td>
</tr>
<tr>
<td>B Cover Letter, Instruction, Scales, Demographic Data, Generation 2</td>
<td>188</td>
</tr>
<tr>
<td>C Instructions and Scales for Generation 3</td>
<td>203</td>
</tr>
<tr>
<td>D Rank Order of Scale Items, Generations 2, 3</td>
<td>213</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>102</td>
</tr>
<tr>
<td>Index of Reproducibility (R), Reliability (rtt), Reliability Corrected (Corr.), and Inferred Average Inter-item (Inf. Cor.) Correlations for Selected Scales Generations 1, 2, and 3</td>
<td>102</td>
</tr>
<tr>
<td>II</td>
<td>115</td>
</tr>
<tr>
<td>Relationships Among Six Phenomenological Dimensions of Acculturation as Determined by Pearson's Product-Moment Correlation Coefficient (r) (Generations 2 and 3) Using Uncoded Psychometric Scores</td>
<td>115</td>
</tr>
<tr>
<td>III</td>
<td>116</td>
</tr>
<tr>
<td>Relationships Among Six Phenomenological Dimensions of Acculturation as Determined by Spearman's rho (rs) (Generations 2 and 3) Using Non-Parametric, Coded Guttman Scores</td>
<td>116</td>
</tr>
<tr>
<td>IV</td>
<td>127</td>
</tr>
<tr>
<td>Independency of Sample Populations According to the Independent Variables of Time-in-Country and Percentage of Time Living with Americans as Determined by Kruskal-Wallis (H) and $X^2$</td>
<td>127</td>
</tr>
</tbody>
</table>
TABLE PAGE

V Student's Perception of Progress . . . . . . . 139
VI Independence of Sample Populations According to the Independent Variables of National Origin and Intention of Permanent Residency as Determined by Kruskal-Wallis (H) and $X^2$ . . . . . . . . . . . . . 141
VII Correlations between Students' Perceived Status Level and Scale Scores . . . . . . 151
VIII Correlations between Students' Perceived Ability to Communicate and Scale Scores . 152
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A Matrix of a Homogenous Scale</td>
<td>71</td>
</tr>
<tr>
<td>2 Significant Relationships Among Dimensions as Determined by Pearson's r</td>
<td>118</td>
</tr>
<tr>
<td>3 Significant Relationships Among Dimensions as Determined by Spearman's rho (rs)</td>
<td>118</td>
</tr>
<tr>
<td>4 $X^2$-Tests for $k$ Independent Samples--Percentage Scoring Above the Median Along Six Dimensions for the Independent Variable &quot;Time-in-Country&quot;</td>
<td>129</td>
</tr>
<tr>
<td>5 $X^2$-Tests for $k$ Independent Samples--Percentage Scoring Above the Median Along Six Dimensions for the Independent Variable &quot;Percentage of Time Spent Living with Americans&quot;</td>
<td>131</td>
</tr>
</tbody>
</table>
FIGURE

7 $X^2$-Tests for $k$ Independent Samples--Percentage Scoring Above the Median for the Independent Variable "National Origin" ................................ 143

8 $X^2$-Tests for $k$ Independent Samples--Percentage Scoring Above the Median for the Independent Variable "Intention of Permanent Residency in the United States" ..................... 147
CHAPTER I

BACKGROUND

Overview

Acculturation has been defined as "one kind of cultural change, specifically the processes and events which come from the conjunction of two or more formerly separate and autonomous cultures."¹ The study of this process is a broad field of enquiry encompassing several disciplines—anthropology, sociology, speech communication, and psychology.

Anthropology has traditionally been the locus of most of the discussion on acculturation. A few of the classic reports in this field include Redfield's et al., "Memorandum for the Study of Acculturation," Broom and Kituse's "The Validation of Acculturation: A Condition of Ethnic Assimilation," and Herskovitz' *Acculturation*.² More recently, studies of culture shock and foreign student adjustment have been made in the field of speech communication. Noted writers in this area include Barna, Oberg, Morris, Selltiz, and M. Brewster Smith among others. (See List of References.)

However, in both the fields of anthropology and speech communication it is problematical whether or not a standardized, operational definition of the acculturative process
has been established. And even though researchers such as Morris, Spindler and Spindler, and Weinstock$^3$ have described some of the changes in an individual's perception over time as he becomes acculturated, it is rare to find a study that is longitudinal, covers a broad range of nationalities, and is standardized, easy to replicate, showing an individual's degree of acculturation in comparison to others.

This study therefore has three major purposes: (1) to establish a tighter definition of the construct "acculturation," (2) to measure and analyze the change in a foreign student's self-perception of his progress in acculturation over time during his sojourn in the United States, and (3) to determine the congruency of a student's self-perception with appropriate behavior, as determined in previous studies and defined by amount of contact.

The first chapter of this study is a review of the literature of acculturation from the fields of anthropology and speech communication. Chapter 2 delineates the purpose, basic assumption, and the theoretical hypotheses. Chapters 3 and 4 will describe and justify the testing instrument and the procedures. Results of each of the three phases of testing and a discussion of these results will be presented in Chapters 5, 6, and 7 respectively. The last chapter will summarize the research and present implications for further research.
Introduction

This chapter has three divisions: (1) the basic theories of acculturation, which includes a definition of acculturation; a justification of the inclusion of foreign student adjustment as a sub-set of acculturation; the basic processes of culture acquisition, i.e., perceptual growth, socialization, and attitude change; and the effects of personality variables and background experience, (2) previous methods of studying acculturation, and (3) a summary.

Basic Theories of Acculturation

Definition

In individual studies, acculturation has been defined along a broad continuum everywhere from, "... the process of becoming more American-like," to "... the ultimate assimilation of the ethnic individual in American society." However, the classic definition of acculturation is that set forth by Redfield, Herskovitz, and Linton:

Acculturation comprehends those phenomena which results when groups of individuals having different cultures come into continuous first hand contact, with subsequent changes in the original culture patterns of either or both groups.

Acculturation is to be clearly differentiated from culture change, a sub-set which "refers to modifications in the elements and patterns of a cultural system." These modifications may accrue as a result of culture contact or may be internal cultural changes only such as the transition from closed to open classrooms in the United States.
Acculturation is also to be differentiated from assimilation. Even though both acculturation and assimilation involve direct contact and are dynamic processes occurring on both the individual and the group levels, assimilation is unidirectional requiring that the newcomer be accepted by the new host culture and that the newcomer change his reference group and internal thought patterns including his value system.9

Teske and Nelson emphasize the difference between acculturation and assimilation as they note that

...[1] acculturation may occur independently of assimilation; [2] acculturation is a necessary, though not a sufficient condition for assimilation to occur, and [3] the extent to which acculturation must occur before assimilation begins is indefinite.10

Thus there are varying degrees of acculturation and various possible mixtures of acculturation and assimilation. Teske and Nelson note that it is possible for a person to be highly acculturated, yet not assimilated (such as East Asians in India); or to be highly assimilated but not yet acculturated (such as newly arrived scientists or artists); or it is even possible for someone, a "sojourner," to be highly accepted and highly acculturated without changing their reference group (such as missionaries, diplomats, and foreign students).11

In clarifying the difference between assimilation and acculturation and as a means of defining acculturation, the salient characteristics of acculturation have been listed as follows:
1. A dynamic process [not a "unitary event" or an end product]
2. May be treated as either an individual or a group process
3. Involves direct contact
4. Two-way, that is, may occur in both directions [bi-directional]
5. Does not require change in values, though values may be acculturated
6. Reference group change not required
7. Internal change not required
8. Out-group [host culture] acceptance not required

Foreign Student Adjustment as a Sub-set of Acculturation

As seen above, the older definition of acculturation stated that acculturation was a phenomena occurring when groups came into first hand contact. Teske and Nelson note that this assumption was tacit in earlier studies. Authors such as Herskovitz, Linton, and Bogardus were mainly concerned with the process occurring between groups. More recently however, writers in the field of anthropology began to stress the individual in the acculturative process. Spiro, Broom and Kituse, and Dohrenwend and Smith were among those interested in this particular aspect of acculturation.13

Also in the late 1950's, Morris defined foreign student adjustment as favorableness, personal satisfaction, satisfaction with facilities, and amount and kind of social contact with Americans along the four dimensions of (1) cultural adjustment (liking and accepting the new culture, liking Americans), (2) personal adjustment (being happy and satisfied with the stay regardless of liking for
Americans), (3) educational adjustment (the amount of satisfaction with educational facilities), and (4) social adjustment (the extent to which one forms friendships and associates with new companions).14

This adjustment process defined by Morris is inherent in cross-cultural education. It is, for the student, one in which he comes closer to American norms or in which he makes adaptations to his original perceptual framework. Since this is so, M. Brewster Smith refers to the whole cross-cultural experience, including that aspect dealing with foreign students, as "an acculturative process."15

Bernard J. Siegel also insists that foreign student adjustment is an instance of acculturation and, as such, involves the interaction of three variables: "... the social and cultural systems (or part-systems of interacting groups, and, ... the intercultural relations established between them."16 He also notes that time is a conditioning variable in the acculturative process which Mandelbaum places as just one of the many channels of cultural diffusion.17

Teske and Nelson summarize the whole discussion by noting that

In short, it is axiomatic that acculturation may be treated as either an individual phenomenon, a group phenomenon, or both, providing care is exercised to define at which level of analysis the scholar is operating.18

The existing literature, therefore, contains the premise that foreign student adjustment may indeed be
legitimately considered and treated as part of the acculturative process. By reason of this, what applies to one applies to the other. One application is that any of the definitions and processes that have been found applicable to the classic anthropological studies of groups may also be applied to the case of individual foreign students. Logically, that which is also found to be true for foreign students may also be generalizable to others undergoing the same experience.

The Basic Steps of Trait Acquisition

Even though the order of trait acquisition appears to be stable across all situations, the choice of traits to be acquired is dependent on individual differences within persons and specific social environments.

Environment

The nature of the contact situation itself is important: acculturation occurs in a social context; therefore, what one borrows is dependent upon the "carrier" activities that one comes into contact with, the carrier activities being the parts of the culture that are represented in the contact situation. Demographic and trade characteristics are important. Tribesmen in Papua, New Guinea will have strikingly different views of the United States if their first encounter with Americans is with a group of male rubber entrepreneurs or with a group of male and female missionaries. Foreign students arriving in the United States
will have different views of American life if they attend a large eastern university or a private college in the midwest.

Once the representatives of the cultures come into contact, a specialized intercultural role network becomes established. This role network then influences the amount, kind, direction, and impact of the communications which flow between cultures. Contact between two different groups stimulates change. But the parameters of the change are determined by the demographic characteristics of those who are in contact and by the nature of each society. The change that is encouraged may be one of several types. The cultural traits of either group may be diffused and adapted, or adopted. Or the presence of a new culture may act as a catalyst stimulating within-culture innovations. The change may be a fusion of the two formerly autonomous cultures or assimilation of one culture into the other. Or, the two cultures may remain in the asymmetric, symbiotic relationship known as pluralism.

However, the end results of the contact and any adaptive or maladaptive effects depends on the degree of integration and psychological balance within the system—whether the system is a culture or an individual, i.e., a very tightly organized system may break under the pressure of radically different incoming stimuli. A more loosely organized system will more likely be able to integrate the new input.
Substitution Process Influenced by Individual Differences

As a sub-set of the acculturative process, culture change itself (whether in a group or by an individual) is mainly a "process of substituting new elements for old" as each individual or group selects specific traits to be borrowed. This basic selection of traits occurs in the peripheral rather than the core institutions of the groups or individuals. For example, Saudi Arabian men coming to the American university will more easily adopt the American patterns of dating than they will the value orientation of equality between the sexes.

Linton notes that

... the factors which influence the dissemination of culture elements most strongly are the utility and compatibility with the pre-existing culture of the elements themselves ...

This can be both on an individual or on a social level. A Japanese woman student who is already more outgoing and aggressive than other women in her situation will be more likely to adopt, upon arrival in the United States, the American value orientations of aggressiveness and sexual equality than will her more average Japanese male counterpart.

Basically, the newly disseminated cultural elements are adapted and utilized as the following two conditions are fulfilled. First, the individual selects traits only as they are congruent with the existing cultural patterns
of his primary culture and internal systems, as they hold economic or prestige advantages, and as it becomes expedient to adopt them for social survival. But secondly, this new trait will not be fully accepted nor will the original, "... be eliminated until the substitute has proved itself better, or at least as good, in all the complexes in which the original element functioned." This holds true whether the new element is something as simple as a new nonverbal gesture or as complex as a new value orientation.

In other words, a new form will be selected for adaptation as it is necessary for social survival or as it promises acceptance or prestige. It will be more readily chosen if it is compatible with the newcomer's or borrower's own existing patterns and beliefs. Neither will the new trait or form of behavior be used until it is ascertained that it accomplishes the same function as the old. For example, in Ubud, Bali, movie watching may have been accepted as a substitute means of entertainment replacing the shadow-puppet show, because it was a prestigious Western form of entertainment. However, movie watching would not appear to be an acceptable substitute for the religious and curative shamanistic powers of the shadow-puppet play.

Order of Trait Acquisition

The process of acculturation as seen above is a process of substituting new cultural elements for old, whether these
cultural elements be artifacts or values. Yet, Linton notes that when first contacted:

The culture of an alien group presents itself to the potential borrowers as an aggregation of forms stripped of most of their meaning and all but the most obvious and elementary of their functional relationships. This is to say that the cultural rituals and artifacts of the new group are seen as bare forms with only functional meaning rather than with both functional and symbolic-valuative meanings.

From his observation of the above principle and from his observation of groups undergoing the acculturative process, Linton deduced the basic ordered steps in the acculturative process stating, to wit:

It seems that, other things being equal, certain sorts of culture elements are more readily transferable than others. Tangible objects such as tools, utensils or ornaments are taken over with great ease, in fact they are usually the first things transferred in contact situations. The transfer of patterns of behavior is more difficult. The transfer of elements which lack the concreteness and ready observability of objects and overt behavior is the most difficult of all. It requires not only face to face contact but also the presence of some means of communication adequate for the conveyance of abstractions. In general, the more abstract the element the more difficult the transfer. The common element in this range of variation seems to be that of the relative ease with which the foreign element of cultures can be perceived by members of the borrowing group. Objects can be perceived most easily, culture elements of other sorts with progressive difficulty.

These observations were borne out not only in Linton's own studies but also more recently. One such study among
Thai in Seattle was made by DeYoung who found that for the more recently arrived Thai

Objective materials like clothes, appliances, ... are generally adopted first without difficulty. Other subjects like climate, language, manners, etc. are well tolerated if not well-adapted to.30

However, the psychological changes, the acquisition of new values and attitudes, accrued only over a much longer time and with a more intense involvement in the host culture.31

Summary

The acculturative process begins with in-person contact between two groups or individuals who were previously unacquainted. As items in the other group's behavioral repertoire are found to be complementary, useful, prestigious, or needed they are added to the borrower's behavioral patterns in a substitution process.

Functional, easily perceived traits are acquired first. There are two basic reasons for this: (1) the new behaviors are seen stripped of all symbolic meaning, and (2) one tends to acquire new behaviors at the periphery of one's being rather than at the core. As the length of contact is increased, one begins to recognize not only individual traits, but also new patterns and value systems. When these new behavioral patterns and value systems are found to be necessary, useful, or harmonious they, too, are then acquired.
The Learning Process--Growth in Perception

The acquisition of these new cultural traits takes time. As Schild says,

... the stranger does not observe organized behavior--he perceives only certain acts and has to interpret these on his own: that is the stranger has to organize the acts into the patterns of behavior which are reinforced. But this organization is problematical in itself. The stranger, by virtue of his previous learning in a different culture and consequent relative ignorance of the norms of the host society, may misinterpret the situation and the behaviors, in which case the learning obviously will be faulty.32

The stranger sees these new traits but because of his own cultural frame of reference he cannot perceive their meaning. He might try to reinterpret them in the light of his own reference system; or he may "unfreeze" from his accepted mold and identity and learn to perceive the world in a new way.

This process of perceptual growth is a "stair-step" process, i.e., each stage of perception is dependent on the precedent stage. Yet at any one point, a person's perception of his perception may or may not be congruent with either (a) his own behavior display, or (b) how others perceive his own interpretations and/or actions.

This growth in perception and resulting new behavior has been lucidly defined in lay terminology in the field of communication. The same process has also been elegantly defined linguistically. The linguistic definition also offers explanation for the possibility of incongruency
between the individual's perception of what is occurring and
the actual event.

**Perceptual Growth**

**Speech Communication**

**Definition**

Rhinesmith and Hoopes coined the term "unfreezing" to
describe the expansion of perceptual vistas.\(^3^3\) The expansion
process was described as a three-phase cycle of unfreezing,
moving, and refreezing. One first overcame the anxiety of
seeing the world in a new way (unfroze). One's vision then
expanded, and one accepted or rejected new behaviors while
reevaluating the old models. Finally, one "locked in" the
new changes so that inappropriate patterns would not recur
(refroze).

**Linguistic Definition**

Linguistically, this growth process is described as
the process of differentiation/overgeneralization, the
process by which a child learns to speak the adult
language.\(^3^4\) A linguistic example of this would be a child
as he learns to distinguish two- and four-legged beasts,
naming all four-legged beasts "bow-wow." Differentiation
has occurred between two- and four-legged creatures, but
there has been a generalization among all four-legged
creatures; dogs, cats, cows, etc. have all been grouped into
one category. This cycle is repeated until the child fully
comprehends the meaning of "dog"—the time when the full range of correspondences between the concrete and all abstractions have been made (i.e., between dog and not-dog, this dog, that dog, my dog, etc.).

It seems logical that this process of differentiation/overgeneralization, of unfreezing-moving-refreezing, would occur throughout the learning process as one acquires new traits. One would call a person acculturated who has made the full range of correspondences between the concrete element to the behavior pattern of which it is an integral part, to all the abstractions or values and philosophies which underly it.

Congruency between Self-perception and Reality

Even though it seems logical that the perception and integration of abstractions occurs after the perception and integration of concrete behaviors, it is sometimes necessary to determine by means other than verbal report just how much a person actually does or does not know. Self-perception of how much one knows with what one actually knows is sometimes linear and sometimes curvilinear.

A linguistic example of this would be the child insisting that the cat is a "dog," because he is aware that it is not "mommy" but is not yet aware that "cat" exists.

A cultural example would be as follows:

When some African men arrive in the United States, they are pleased to find American women who will readily
go out to dinner and a movie. They say to others that they understand why: the women are in love with them. But they have understood the situation according to their previous background and have integrated only one element of the dating pattern. They are not yet aware that going out to a dinner and a movie may have other connotations than "love" and, therefore, may be adamant that they understand. True understanding would not occur until the American courtship pattern was understood including the more casual relationship of "friend" and the less casual relationship of "fiancée."

Conversely, a person who has been in a new country for a period of several years may not realize how many of the new norms he understands, has internalized, and is actually using and, therefore, may say that he doesn't really understand what is happening in a particular area until he can compare his knowledge with the knowledge of those who have only recently arrived.

The Learning Process--Integration and Socialization

As the individual's perception of the host culture grows he has the option of integrating these new elements--traits, patterns, and values of behavior. A student, more specifically, learns to handle the five factors M. Brewster Smith lists as needed for personality adjustment:

1. overcoming communication problems; 2. learning the American academic "maze"; 3. gaining acceptance and making friends; 4. balancing memberships and loyalties; 5. regaining integrity of personality and self-esteem.
The integrating, socializing process is gradual and relatively easy. But many times the process is made more difficult because of the changes that need to be made in one's perceptual set and the tendency to allow negative attitudes to dictate responses. These are problems, and the intensification of such may lead to role conflict and withdrawal, i.e., to culture shock.

Culture shock generally occurs about midway through the learning process. Malingering is aided by the student's position on the periphery of society and his tendency to withdraw into groups of co-nationals. It is only through time and interaction with host nationals that the student recovers enough to validate the acculturative experience and to proceed through the final two phases of the learning process.

Cognitive Phases

After the initial moment of contact which begins the acculturative process, the individual psychologically proceeds through the four steps which DeYoung posits as necessary for the integration of new traits: (1) comparative judgment, (2) a time of more acute observation, (3) recognition of excellent qualities in the new patterns and hence, appreciation, and (4) absorption of the new standards and mores. Unless there is outside pressure this process is gradual and not disruptive. Ideally, the two cultures will fuse suscitating a new "third" culture.
Nevertheless, the processes of learning and readjustment are difficult and not necessarily concommitant with personality adjustment,\textsuperscript{41} at least not during every phase.

Culture Shock

The first phase of learning, the time of comparative judgment, can be considered a "honeymoon period." At this time, the student notices the major differences between his native and his host culture. But the strain of living with the differences is counterbalanced by the excitement of being in a new place.

Between the second and third cognitive phases the student has already integrated some new concrete elements into his behavior but has not yet totally seen, comprehended, or integrated patterns of behavior or the underlying assumptions and value orientations. It is at this time that the student realizes that literally and figuratively he is, "not at home" and that is unable to give or receive the messages that he desires.\textsuperscript{42}

For the student, the loss of all "familiar signs and symbols of social intercourse" induces anxiety and the onset of the "occupational disease" known as culture shock.\textsuperscript{43} Symptoms of culture shock may include a negative evaluation and a rejection of the host country, withdrawal into a group of co-nationals, and a glorification of the home environment, among other things.\textsuperscript{44}
The resolution of this anxiety is further impaired by the type of role conflict Mayntz found in adjusting to the role of a visiting academic fellow:

... a conflict between the expectations of different partners in the role-set regarding the behavior of the status occupant ... in inconsistencies of expectations from a particular source of norms in the role-set ... incompatibility between expectations made by a partner in the role-set and the status occupant's own values and behavior dispositions ... insufficient specificity of expectations when one needs to have rank and performance evaluated.45

This is to say that the clash of two diverse sets of expectations and assumptions about role behaviors and even the resolution of role conflicts hinders academic, social, and personal adjustment between the second and third phases of the learning process. Rhinesmith and Hoopes add,

... persons can function successfully abroad only when they are: 1) aware of themselves as culturally conditioned individuals; [and] 2) alert to differences in perception which exist between themselves and others; ...46

Yet this heightening of perception which would facilitate the learning of new role behaviors and the proper filling or expectations is made more difficult for the stranger than for the native in a new role situation because of two major factors. First, the student generally is socially located at the periphery of society while the learning facilities are at the core (especially the family). Second, the student has learned a different repertoire of behaviors in a different setting. Since all learning builds on what is previously
known, the abrupt transition from one set of expected behaviors to another leaves him very little on which to begin building. 47

Broom and Kituse state that "Access to participation in the dominant institutions is a precondition for the validation of acculturation ..." 48 Therefore, the anxiety which causes negative evaluations and withdrawal and the perceptual biases which engender role conflict would appear to be ameliorated only over time and through continued interaction with nationals. This is so because, as Schild notes, the student must relearn his role in much the same way that a child originally learns the role expectations of his own culture—through the slow processes of observation, participation, and explicit communication. 49

Validation of the Acculturative Process (Socialization)

As one moves out of the first two stages of comparative judgment and acute observation (and out of culture shock) into the third stage of the learning process (appreciation of the host culture), one is beginning to comprehend and to integrate the new behavioral patterns and is beginning to operate in an efficient manner. A person or student at this time, however, is still not participating in society in an integral way. Yet it is at this time that he may make the decision to enter society in an integral way by absorbing and utilizing the mores of the host culture, thus "validating" his acculturation. 50
If a person chooses not to enter the society in an integral way, two routes are open to him—marginality or a type of isolation in his own ethnic group. If a student chooses marginality, he exists on the periphery of both groups unable or unwilling to decide who he is or where he belongs; he is considered a "marginal man." Though interacting with members of both groups, he will be considered a little odd or strange by members of both groups and will not be warmly or intimately accepted by the majority.\(^{51}\)

A student may elect the alternative, to retain membership in his own national group. Though he interacts with members of both groups in at least a tolerable manner, he interacts mainly with other foreigners like himself. Because of this, his attitude toward the host culture will continue to be influenced by his own national group in a cycle of uniformly held stereotypic attitudes.

His own reaction to the host culture is influenced by the expected reaction of the group and is reinforced by the shared experiences of the other members. The host culture is seen through the group's perspective rather than through the individual's own perspective.\(^{52}\) Access to the "dominant institutions" may be limited by force or by choice, as in this case. This limited access will "... create stress in [the] inter-ethnic situation, provide for the prolonged survival of parallel ethnic institutions, and result in deferring the validating acculturation."\(^{53}\)
In other words, the student no longer views the host culture through his own eyes or thinks for himself but allows the group to think for him. Ethnic enclaves are created and one retains as much as possible the heritage of the home country. This results in a superficial knowledge of the host culture and a stereotypic form of response to its members.

Validation of the acculturative experience may be chosen by the individual in contrast to the above withdrawal from the society. This validation occurs as one moves more deeply into social and personal contacts with the host nationals into the fourth stage of the learning process. Once again, two options are open. First, a student may choose to assimilate to the host culture, completely integrating new core values. This is the process of becoming "nationalized." Or, one may choose to adapt and meld both cultures, forming a third culture. The person who does so differs from the marginal man in that he is an accepted and liked member of both groups. He is free to move in and out of either group as he pleases and is able to understand, utilize, and clearly explain the various behavior patterns and values as necessary. He is eclectic and would probably be considered cosmopolitan.

Summary

The learning-socializing process, then, is a multi-staged process. One first makes gross comparisons and
judgments between the home and the host culture. Later, more acute observations and differentiations are made. But as one realizes how dissimilar the two cultures are, conflict and withdrawal--culture shock--sets in.

As one begins to integrate and appreciate aspects of the host culture, one is in the third phase of the learning process. Yet one may now choose whether or not to integrate into the host culture in a viable manner. If one chooses not to integrate one may remain marginal to both groups or one may remain on the periphery of only the host culture.

If one chooses to integrate, to validate one's acculturative experience, to socialize, one may assimilate to the new culture, or one may adapt to the new culture while forming a third culture which is an eclectic, personally satisfying meld of the home and host cultures.

Ease of adjustment and change would appear to depend on the depth and amount of personal and social involvement a person allows himself to have with the host nationals.54

Patterns of Foreign Student Adjustment and Attitude Change

As seen in the previous section, the individual learns and integrates the traits of the host culture in a multi-staged socialization process. During this time, the individual moves through times of satisfaction and of dissatisfaction with the host country, times of comfort and of much discomfort. These patterns of personality adjustment
reflect and are reflected in the socialization process and have been intensively studied by researchers working with foreign students in the United States.

William H. Sewell was among the first of several major researchers in this study of foreign student adjustment patterns which has been established as a subset of acculturation. While developing an index of contact and an index of affect to measure the effect of background variables on adjustment, Sewell found a U-shaped pattern which described the personal adjustment phases that students underwent.

This U-shaped pattern, or U-curve of adjustment, is a graph correlating feelings over time. The pattern can be basically described as a time of a highly positive outlook followed by a time of quite negative feelings, followed once again by a more positive outlook. Many different attitudes and processes within the sub-field of foreign students adjustment have been graphed over time. Other curves such as the \( \cap \)-curve have also been found and reported on. But the basic pattern of adjustment which has been defined has been the U-curve.

M. Brewster Smith found the same U-shaped pattern for morale and for satisfaction over time as the students went through the four adjustment phases he entitled spectator, adjustment, modus vivendi, and readjustment. Among Indian students in the United States, Coelho found four phases of
attitudinal change: favorable impressions, criticism and use of previous thought patterns, a time of "broad national orientation," and lastly a period of reorientation to the homeland. In addition, Coelho found that attitude change was related to length of stay, yet cautioned that the content or nature of the change should not be generalized from national group to national group.58

Selltiz and Cook found this same pattern of enthusiasm, criticism, and return to a favorable attitude yet without the initial intensity. They also found that feelings of satisfaction with the stay and attitudes of favorableness to the United States followed this same U-shaped pattern.59

One of the major studies of adjustment and attitude change was by Richard Morris as he regarded the effect of national status in foreign student adjustment. In this study, adjustment was defined along four dimensions--cultural, personal, educational, and social--and was measured by four indices: favorableness to the United States, personal satisfaction with the stay, satisfaction with educational and training facilities, and the amount and kind of social contact had with Americans.

It was found that students with previous foreign travel, good communication skills, and previous contact with Americans (usually students of European background) were more satisfied with their stay than those without the same broad range of experience. Although this more personal type of satisfaction was not necessarily correlated with
favorableness, satisfaction with practical and academic affairs was related to favorableness to the United States. However, the U-curve pattern of attitude change (positive, negative, positive) which had been appropriate in the aforementioned studies was not found to reflect a correlation with this type of favorableness to the United States and time-in-country in any statistically significant way, except for students who had been in the United States for over 50 months.60

One of the later studies on the pattern of adjustment found was "Patterns of Attitudinal Changes among Foreign Students." In this report, Becker reviewed the U-curve pattern of adjustment and Morris' findings. In order to explain different patterns of adjustment between students from developed and developing nations, a new hypothesis, the "anticipatory adjustment" hypothesis was proposed such that:

The individual anticipates a drastic and involuntary change in his environment in the near future. Anxiety mounts as the future becomes increasingly more salient and looms menacingly. The ego seeks to protect itself against this threat and to reduce anxiety. One defense mechanism to which it may resort is a process by which the attention is restricted to only those features in the present environment that, from this individual's point of view, are unattractive and undesirable. On the other hand, those features hitherto viewed favorably are carefully avoided or ignored. Concomitantly, the intellectual scrutiny of the future state into which the individual expects to move shortly is motivated by a determination to find in it positive features, which are then stressed and exaggerated and operate as depressors of the threatening elements.61
After further research a U-curve pattern of adjustment was predicted and found for Europeans who had a background similar to that within the United States. A \( \wedge \)-curve was predicted and found for students from developing countries (India and Israel). These curves did not occur in real time but rather in psychological time as the students prepared for return to their homeland.\(^6^2\)

In other words, students from developing nations who had had less travel experience were more likely to dread the unknown. Just prior to and upon arrival in the United States they would exaggerate all the negative features of life in the United States, but towards the middle of their stay they would have a fairly positive attitude. The final phase of their sojourn would once again find them poorly adjusted, emphasizing the negative aspects of the United States in a conjectured, "... feeling of mastery over ... destiny: 'I return, not because I am forced but because I choose to.'"\(^6^3\) The U-pattern was found to be more usual for European students who were not arriving into a totally unknown situation.

These studies emphasized the attitudinal changes of foreign students in the United States toward the United States over a period of time. The usual pattern of adjustment appears to be a U-shaped pattern of positive, negative, and a return to positive feelings. It seems probable that this pattern reflects the stages of relative cultural
ignorance, culture shock, and integration into the host society, but this is not certain.

Personal Factors Influencing Adjustment

Even though all people seem to go through the same basic steps in the process of trait acquisition, the same learning-socialization process, and the same adjustment problems, personal factors may significantly influence the rapidity and ease of acculturation. Among the personal factors which have been found significant have been (1) a person's national background and previous contact with the host culture, (2) personality characteristics, and (3) the desire to remain permanently in the host culture.

Background and Contact

As seen above, Becker's "anticipatory adjustment" hypothesis proposed that Europeans would follow a U-curve pattern of adjustment while students from developing nations (Israel and India) would follow a Π-pattern: at first they would dread the unknown and so, dislike the United States; before return, the negative attitude would reflect a conjectured unwillingness return.

Morris also found that "national status change is more important in affecting adjustment than is personal status change." When students from developing nations arrive in the United States expecting to have their country's and their own status highly evaluated but find instead, a
low evaluation, they feel a hurt and resentment toward the host culture. This reduces the chance for close personal relationships precluding facile adjustment.

Finally ease of communication with nationalists and the severity of role conflict is influenced by previous travel experience and familiarity with the host culture. As Morris discovered, satisfaction with the sojourn is related to the amount of previous exposure and flexibility. Those with previous contact with American culture and who were already proficient in English were able to make friends more rapidly and to more easily understand the patterns and values of behavior found in America.

Personality

As previously noted, the acculturative process is a subtle, gradual process of learning and forgetting seemingly induced by the secondary motives of anxiety, prestige, and acquired desires. Since the acquisition and integration of elements occurs only with internal conflict over a spread of time it appears necessary for a person to be confident and satisfied and to have a "will to adjust." These will lead to the greater degree of openness and interaction which enables a more rapid acculturation.

These dimensions of achievement orientation and confidence along with the dimension of flexibility were found crucial in several different studies. Nash and Shaw, working with Japanese immigrants on the Isle of Pine, Cuba, were able
to delineate three personality types—the autonomous (flexible) man, the transitional (bridging) man, and the traditional (or conservative) man. Of these three types, it was the former two which acculturated more rapidly than the traditional. Spindler and Spindler found that the traditional flexibility of the native American Menomini woman's role allowed her a greater flexibility in the adaptation process which was denied to men. Hence, women from this society were found to acculturate more rapidly than men. Finally, Weinstock found several traits to predominate among Hungarian refugees who acculturated more rapidly to life in the United States. These traits included high cynical and achievement orientations.70

Bennet, Passin, and McKnight are among those who have constructed typologies of personality types of foreign students in the United States. Although they found the three types of constrictor, adjustor, and idealist among Japanese students they did not claim these types were universally valid.71 Nevertheless, the personality type appears to be an aid in predicting how the student will react to incoming cultural stimuli: whether he will retain traditional patterns, react using both traditional and new models, or wholeheartedly accept the new attitudes of the host culture.

Intention of Permanent Residency

In addition to previous experience and the aforementioned personality traits, another motivation has also been
found to affect both the degree and rapidity of acculturation. This motivation is the intent to remain permanently in the new culture. Weinstock found that Hungarian refugees who had the intent to settle permanently in the United States had acculturated more in a two-year period than those without the intent of residing permanently. Among Thai in Seattle, DeYoung found that the migrant rather than the nonmigrant acculturated to a greater degree and even to such an extent that some new core values were being integrated.\(^72\)

**Methods of Studying Acculturation**

Previous studies of acculturation in both fields of anthropology and speech communication have mainly been descriptive (observation, interview, essay) or index measurements (e.g., Likert scales, TAT, Rorschach). Although there have been many outstanding studies, even more study has been called for in some specific areas.

**Previous Studies**

**Anthropology**

Many of the classical studies of acculturation in anthropology were made through observation and description. Use of the Thematic Apperception Test (TAT), Rorschach inkblots, and interview techniques is also prevalent. Spindler and Spindler devised the Instrumental Activities Inventory (a TAT modification) to test specifically for individual and group differences in trait acquisition.\(^73\)
More recently, DeYoung used the interview technique and Likert scales to determine the degree of acculturation among Thai in Seattle. Weinstock in his thorough study of Hungarian refugees used several measures in addition to the open-ended interview schedule. These included the Campisi scale, a 5-point Likert scale, the Information Scale (an objective true-false test), the F-scale, the Strodtbeck Achievement Scale, and the Mach IV Scale.

**Speech Communication**

Most communication studies have been conducted through the use of interview, essay, semantic-differential, and Likert-type scales. Selltiz and Cook though, included a representational measurement, a Guttman-like scale in which the instrument and the variable measured interlock. This technique, however, is only infrequently used in communication studies of foreign student adjustment.

N for these studies have ranged from 77-348 subjects. Some studies have been conducted with only one national group; others have conducted studies with students from over 50 countries.

**Need for Further Studies**

These studies from both fields have been thorough, even elegant, yet as early as 1956 M. Brewster Smith was calling for more careful and perhaps new methodologies to
study the specific problems of sojourn adjustment. In 1967 Ekroth reiterated and expanded the plea stating:

Studies over time of individuals learning to perform the communicative behaviors of a different culture have not been done. Research has centered around the amount and kind of interaction with members of the new culture or around personality adjustment, but has not examined the development of new communicative behaviors in the adapting individual. Moreover, although studies have been done which relate personality and background variables with personality adjustment, or with judgments of effectiveness in communicating within a new culture, no examination has been made of the chronology of the transculturation process in learning new communicative behaviors.

An exception to this was Weinstock's study published in 1969 in which he measured self-perception and the desire to acculturate as well as language use, food habits, measures of association with Americans, and group identification by means of the Campisi scale. In addition, Weinstock developed a Chi-square test to discriminate old-line and ethnic responses in that ". . . 1) the degree to which a person of foreign background internalized certain aspects of the American way of life and 2) the degree to which a person retains some aspects of his foreign way of life" might be measured.

The Weinstock study examined the acquisition of new role-sets and some of the factors influencing this development. But the respondents of the study were dichotomized among "old-timers" and those who had been in the United States for only two-to-three years. This meant that the findings were not necessarily valid for subsequent years;
the study was not truly a longitudinal study in the strictest sense of the word. In addition, even though a wide range of trait variables was used to test acculturation, these were not ordered in any way. The test showed whether or not an acculturated person had a specific trait, but the order of acquisition of the communicative traits was indeterminate.

As the studies by Linton and DeYoung have shown, it seems probable that traits are acquired in a specific order (communicative behaviors inclusive). It would therefore be judicious to develop a test which would verify the order and rate of acquisition of these traits. It would also be profitable if the same test might indicate attitudes or feelings attendant with a specific degree of acculturation, or if this test might indicate congruencies or incongruencies between self-perception of behavior and actual behavior.

**Summary**

Foreign student adjustment is a sub-set of the process of acculturation, i.e., of the phenomena which occur when individuals or groups from different cultures come into contact with the ensuing changes in the cultural patterns. Only the traits with which one is in contact will be integrated; traits which are at the periphery rather than at the core of one's being or culture will be more quickly adapted.

Since the new traits which one observes have very little psychological depth or meaning, new elements are
first tried and used for their pragmatic value. Hence, tangible traits are first acquired. Though these concrete behaviors are seen as necessary for "survival," even they still appear meaningless. Yet as the student continues to interact with members of his host culture his perception expands and he learns the patterns of behavior. If he is open, he will finally begin to perceive, comprehend, and perhaps assimilate core values in the growing step-by-step process of differentiation/overgeneralization.

The acculturative process itself begins at the moment of contact and continues through time and conflict as a person is driven by motives of anxiety, prestige, and desire through the four phases of socialization. This process may cause a great deal of stress. Especially after the first phase (the honeymoon period), a time of culture shock and gradual recovery is probable. At this time one may then continue through the learning process integrating into the new culture or one may opt for marginality or a return to previous cultural patterns. If one chooses to continue through the learning process toward acculturation one may either adapt and form a third culture or assimilate and become "nationalized" even to core values.

The learning-adjusting process is difficult. The honeymoon period followed by the time of shock and gradual reintegration of personality is graphically reflected in tests of attitude and adjustment change. In these tests,
U-curves and η-curves have been found to reflect changes in attitude toward the United States and satisfaction with the sojourn concomitant with changes in adjustment.

These adjustment phases are caused by personal anxiety brought on by the need to learn new role patterns which one is ill-prepared to perceive or understand. Nevertheless, those who are confident, open, flexible, and well-traveled seem to acculturate more rapidly than those who are not. Those who intend to reside permanently acculturate both more deeply and rapidly than those who do not intend to stay.

In general, the studies done in the field of speech communication have confirmed that the variables of greater amounts of interaction potential and a higher national status interact with each other, each influencing more favorable attitudes and even beliefs about the American interpersonal and social patterns. The size and location of the school attended has been found to make little, if any, difference in a foreign student's attitude toward the United States.80

The U-curve pattern of adjustment has never been definitely proven; it is still tentative.81 Yet the number of studies that have found this pattern strongly suggest that it does exist. N for these studies have been reasonable and the students studied have ranged from Scandinavian to Indian students in the United States, to American students in France.82 Becker also found a η-curve which seemed to reflect a different pattern of adjustment for students from developing nations.
Methods of studying acculturation have concentrated on the use of index measurements although some use of representational measures has been found. A call has been raised for more studies of the "chronology of the transculturation process."
Chapter 1--Notes


4 Weinstock, p. 8. 5 Broom and Kituse, p. 48.

6 Redfield et al., p. 149. 7 Ibid.


10 Teske and Nelson, p. 365. 11 Ibid. 12 Ibid.


Ibid.

Linton, ed., p. 479.

Ibid., p. 496; selection of traits in Dohrenwend and Smith, p. 37.

Linton, p. 474.

Redfield, Linton, and Herskovitz, p. 152.

Linton, p. 481.  

Ibid., p. 487.  

Ibid., p. 486.


Ibid., p. 61.


For further discussion, Ibid., pp. 53-55.


Linton, p. 493.

Weinstock, p. 6.


Ibid., pp. 1-2.


Schild, p. 43.

Ibid.

Broom and Kituse, p. 48

Schild, p. 43.

Ibid., p. 44.

Dohrenwend and Smith, p. 36.

Ekroth, pp. 37-38.

Broom and Kituse, p. 48.


57 Becker, pp. 436-442
59 Becker, p. 431-432.
60 Morris, pp. 104-105.  61 Becker, p. 434.
64 Morris, p. 136.  65 Ibid.
66 Ibid., p. 137.  67 Hallowell, p. 183.
68 Redfield et al., p. 151.  69 De Young, p. 67.
72 Weinstock, p. 6; DeYoung, P. 493.
74 DeYoung, passim.  75 Weinstock, pp. 52-55.
76 Becker, p. 434; Selltiz and Cook, p. 7; Coelho, pp. 55-87.
78 Ekroth, pp. 127-128.  79 Weinstock, p. 51.
81 Selltiz and Cook, p. 20; Becker, p. 432.
82 Selltiz and Cook, p. 20.
CHAPTER II

BASIS FOR THE STUDY

Introduction

As mentioned previously, Ekroth has noted that, "... no examination has been made of the chronology of the transculturation process in learning new communicative behaviors."\(^{1}\) Yet, as seen in other studies such as Linton's, it appears that this transculturation process should occur in a set order and within fairly specific time periods. However, the rate or ease of this process may be affected by personal factors and may not even be accurately perceived by the person who is going through the process.

What would be useful then would be a measuring device which would elucidate the nature of some the perceptual process as one acculturates: i.e., whether the cognition and perception of acculturation also occur in a set order and pattern over a specific time as does the actual behavioral acquisition and use of elements. Then, if the instrument could also graph the change in a person's perceptual pattern, as these graphs were compared with other known data, congruencies and incongruencies could be mapped between a person's actual behavior as defined by other variables and his perception of what he knows, i.e., the phenomenology of the acculturative process.
Finally, it would be useful if there could be a standardized means of determining a person's position along the acculturative continuum which would incidentally expand the operational definition of acculturation. An instrument such as this would be an aid not only to advance the study of acculturation but also to counselors and professors in the design of appropriate orientation and counseling programs.

This study undertakes to formulate just such a measuring device. The purpose of the study and the underlying assumptions will be set forth in the next two divisions, followed by the method of study needed for such a device and the theoretical hypotheses.

**Purpose**

The major purpose of this study is to try to discover some of the characteristics of the nature of the cognitive processes and perceptions underlying acculturation. This will be done through three major approaches:

(1) by an attempt to verify the existence of hierarchies along various posited phenomenological dimensions of acculturation,

(2) by determining if each of these nine hierarchies is a subhierarchy of the factorially complex construct, "acculturation" thus helping to forward an operational definition of "acculturation," and

(3) by determining the congruencies between one's own perception of how acculturated one is with other known facts about the acculturative process.
Assumptions

There are four major assumptions underlying this phenomenological approach to (foreign student) acculturation. They will be briefly listed then discuss as necessary.

Before doing so, the following should be noted. As seen in Chapter 1, acculturation is a phenomenon which concerns both groups and individuals. Yet it was decided to limit this study to foreign students for three reasons: (1) foreign students have been found to be a source of culture change, (2) they are a well-defined, important and readily accessible group in the American university, and (3) what is applicable or true for them should be generalizable to others in general who are undergoing the acculturative process (see Chapter 1).

The four assumptions are as follows:

1. A person himself will perceive the acculturative process as a gradual, growing process accruing in stair-steps, each step dependent on the precedent (i.e., the phenomenology of acculturation is scalable).

2. The phenomenological processes may or may not be congruent with (a) one's behavior display, or (b) how others think one perceives and acts.

3. There are at least two ways of discovering a person's perception of his place on the continuum of acculturative competency: (a) through his feelings of degree of comfort and satisfaction, and (b) through his perception of understanding and being understood.
4. An index of the (in)congruencies between self-perception of acculturative competency and actual behavior can be found by correlating feelings of comfort and satisfaction and perceptions of understanding and being understood with the amount of time spent with Americans. An index of the degree of influence of other factors known to affect acculturation may also be found by graphing these factors against the person's own perception of acculturative competency.

The Phenomenology of Acculturation

As seen in Chapter 1, the learning process is a process of differentiation/overgeneralization. It is readily seen in the linguistic realm that this process accrues in stair-steps, each stage of abstraction dependent on the precedent stage. It seems that, by analogy, the same would be true for learning the norms of another culture, especially since such an abstract thing as moral development appears also to accrue in stair-steps.

If the acquisition of elements occurs in the manner noted by Linton, then it seems as if the more abstract elements such as value orientations would be perceived as more difficult to understand or to be satisfied with. The perception of the acculturative process would be accruing in stair-step, i.e., would be scalable.
Congruency

As also see in Chapter 1, a person may think that he understands long before he actually does understand. A person may perceive that it is harder for him to understand the values of a new culture, but he may also think that he does actually understand these values. The Nigerian man may perceive that it is harder for him to learn the new courtship patterns than it is to acquire the habit of wearing blue jeans, but, in spite of this he may think that he has mastered the new patterns. His perception of the degree of difficulty is accurate, but his perception of his ability is incongruent with his actual ability.

These incongruencies may occur as one first makes gross differentiations and generalizes to situations where the differentiation is inappropriate (calling a cow, "dog"). As one moves to finer and finer differentiations, after the period of culture shock perhaps, the congruency should be closer.

However, there is a wide range of variables which might affect the degree of congruency. For example, besides the amount of contact with Americans (length of time-in-country and percentage of time spent living with Americans, inclusive) nationality and intentions of permanent residency may also be important.
Two Measures of Competency

A person's perception of his level of competency (of his present stair-step) along the acculturative continuum might be measured by two means: (1) through discovering his degree of comfort or satisfaction, or (2) through his perceptions of understanding or being understood. Either or both of these may reflect his actual comprehension of events.

Feelings of Comfort and Satisfaction

If a person becomes acculturated he must learn new norms of behavior. This in and of itself is a normal human process as one moves from childhood to adulthood; but for a stranger it is much more difficult, because he is located on the periphery of society while the rules are transmitted from the center out. In addition, he is perceiving these norms from a different perspective. Actions, behavioral patterns, attitudes are not seen in context. Very little makes sense using this inappropriate screen. So normal defensive measures are taken and he rejects that which irritates.

If he remains open to the culture and tries to see it as it is he still risks discomfort. As Barna notes:

Someone operating in another culture often feels confused and helpless. His normal props are gone, simple chores are very complicated, and he feels like he is walking on ice. If he is "broad-minded" and full of good will he exposes himself to a myriad of different sights, sounds, smells,
attitudes, values and assumptions. All have the potential of upsetting his normal base of security, his own cultural givens.

This nearly always arouses one's system to a high tension level which, if prolonged, results in fatigue and feelings of anxiety. The body eventually "wears out"…

Common symptoms of culture shock are a rejection of the new environment by withdrawal or a hostile and aggressive attitude …

From this it can be seen that when a person enters a new environment the lack of familiarity causes dis-ease. If he can tolerate this and the stimuli are organized into a new and workable set, the gestalt becomes known, familiar, comprehended. The sense of anxiety should then lessen and greater feelings of comfort and satisfaction be present than if the stimuli were still discomfiting.

Again, one would first become comfortable with the perception of tangible items—they are the most readily seen and understood, and hence, tolerated. Only later would one become more comfortable with patterns of behavior and finally with value and attitude systems.

Feelings of Understanding and Being Understood

R. D. Laing in *Interpersonal Perception: A Theory and Method of Research* was among the first to plumb a person's comprehension of a system through various levels and perspectives of feeling of understanding and being understood. In his research he found that self-report of feelings of understanding and being understood on a paper-and-pencil test could be a fairly accurate representation of the actual state of perception and of reality.
In summary, a person's perception of his degree of acculturation will grow in a step-by-step process paralleling the order of actual trait acquisition. This perception can be determined by knowledge of the amount of a person's feelings of comfort and satisfaction and by knowledge of the amount of his perceptions of understanding or being understood.

Graphing the Congruencies

Inconsistencies between a person's own perception and actual level of comprehension or behavior may be caused by the nature of the learning process and by defense mechanisms, as well as other factors. When the person's perceived level of understanding is graphed against these other variables known to affect the acculturative process such as time-in-country or nationality the rate of the acculturative process can be better understood and the influence of these variables can be controlled.

**Method of Study**

The main criteria for a device which would measure the cognitive acculturative process in such detail are two-fold. First, the device must be one which would show the cumulative developmental properties of the process if such were to actually exist. Second, the device would have to be one which would allow the researcher to know if he were actually measuring the construct "acculturation," or if he were
measuring additional sub-constructs, or a totally different construct.

The type of instrument which would do this will be further discussed in Chapter 3.

**Theoretical Hypotheses**

The three primary hypotheses of this thesis are as follows:

**Hypothesis I.** Acculturation is a scalable construct along various posited phenomenological dimensions.

This is to say that the phenomenological dimensions of acculturation will be perceived and will exist in a developmental hierarchy. As seen before, each of these dimensions of satisfaction, understanding, or comfort, etc., should reflect the actual growing, expanding comprehension of the new behavioral system. The process of differentiation/overgeneralization appears to be such that each step is dependent on the preceding step.

**Hypothesis II.** Acculturation is a factorially complex construct which can be defined as an amalgam of sub-hierarchies along various phenomenological dimensions which may or may not be related to each other.

**Hypothesis III.** A scaled self-report of the degree of perceived competency reached on a scale of a given phenomenological dimension of acculturation is related to actual behavior on that
dimension as determined in other studies and defined by other variables. The relationship may vary according to other variables and may or may not be linear.

The three secondary hypotheses which are related to this third primary hypothesis are as follows:

A. Perceived level of difficulty of the items parallels the actual order of difficulty of trait acquisition.

B. Perception of ability may be congruent or incongruent with the actual level of ability as defined by the amount of contact with host nationals due to the processes of differentiation/overgeneralization.

C. Other variables affect the response pattern on scaled self-reports of perceived level of acculturation.

**Summary**

In this chapter the basic purpose and assumptions for this study were given. The criteria for a scaling method were also listed, and the primary and secondary theoretical hypotheses were delineated.
Chapter 2--Notes


CHAPTER III

METHODS AND PROCEDURES: GUTTMAN SCALOGRAM ANALYSIS

Overview

As seen in the previous chapter, there are three primary hypotheses to be tested: whether the construct, "acculturation," is scalable along various dimensions of comfort, satisfaction, understanding, and so forth; whether or not acculturation is a factorially complex construct composed of sub-hierarchies; and the relationship extant between scale scores and other variables known to affect acculturation.

In order to test these hypotheses, the investigation itself was conducted in three stages after the initial pre-test period. Each stage of testing focused on one theoretical hypothesis.

The pre-test period was conducted at Portland State University. At this time interviews were held with foreign students and some data were gathered from which material to write scales was obtained.

The first stage of testing was the composition, refinement, and administration of nine scales to 150 foreign students at both Lewis and Clark College and Portland State
University through three generations of testing instruments. When the scales were determined to be significantly reliable, the second stage of investigation commenced.

This second stage was to determine the complexity of the construct, "acculturation." This was fairly short and simple as the degree of intercorrelations among the scales themselves and within the test battery as a whole were computed. Pearson's $r$, Spearman's rho, and Kendall's coefficient of concordance: $W$ were the measures used at this time.\(^1\)

Finally, the congruency of an individual's scale scores with demographic data and with other known facts about acculturation could be determined. A battery of tests was run to find these relationships—$X^2$, Spearman's rho, and the Kruskal-Wallis one-way analysis of variance by rank were all used.\(^2\)

The major study, however, depended on the scalability of the various posited phenomenological dimensions of the construct, "acculturation." Therefore, finding a suitable scale and refining it was an important preparation for this. The method of scaling finally chosen was a method which is used in the field of anthropology—Guttman scalogram analysis. Since this technique is crucial and since it is seldom used in the field of speech communication, this chapter will focus on this method: its applicability to the study; its previous uses; what it means as a "representational
measurement; the basic theory underlying it; and criticisms of the method.

The next chapter, Chapter 4, will elaborate on the procedures in the investigation as a whole.

**Applicability of Scalogram Analysis to this Study**

There were four major reasons why scalogram analysis was chosen: (1) there was precedence in the field of anthropology for this technique, (2) the technique is one in which there is a two-way correspondence between the scale and the property or the construct being measured, (3) the technique would reveal the homogeneity characteristics of the construct, "acculturation," and thereby would show where further clarification of the concept would be necessary, and (4) the technique is one which would illuminate any of the cumulative properties that would be present in the acculturative process.

Each of these four reasons will be explicated in one of the following four subdivisions. Precedent uses will be discussed under "Uses of Scalogram Analysis." The second reason will be discussed under "Measurement Types." The utility of an index of homogeneity and cumulativity will be forwarded under the division entitled "The Theory of Scalogram Analysis."

Other methods of scaling were originally considered for this study, especially the Likert scale. But scalogram
analysis offered several advantages which the Likert-type scale could not offer. First, the Guttman scale is in a different class of measurements from the Likert scale. It is a representational measurement rather than an index measurement so that the property and the scale reflect each other; that is to say, not only does the property of the thing being measured determine the index but also the index can be used to make inferences about the property. Second, the Guttman scale is cumulative which the Likert scale is not. If this Guttman scale were to be used it would show the developmental aspects of the acculturative process. Third, the Guttman scale posits an underlying continuum. The Index of Reproducibility (R) would indicate the homogeneity of each dimension and would thus give some further indication of the degree of complexity of the construct, acculturation, itself.

Uses of Scalogram Analysis

In the survey of literature it was found that Guttman scalogram analysis was a test that could be used in a variety of situations—to test attitudes, feelings, and future plans both within and across cultures and over an extended period of time. The test appeared to have been used in situations analogous to the testing situation of this study and seemed capable of handling the data.

Two areas will be briefly surveyed here. One will be the general applicability of scalogram analysis. The other
area will be the manner in which scalogram analysis has been used in actual studies.

Scalogram analysis itself is "... a formal analysis [which] applies to any universe of qualitative data of any science, obtained by any manner of observation." It is a means which will allow the quantification of qualitative data. This data may be obtained by any means of observation--interview, questionnaire, participant observation, etc.--and still be usable.

The problems which are best analyzed by scale analysis are those problems similar to

... many problems in social psychology [which] regard a qualitative item, like an opinion or attitude statement, as but a sample from a universe of similar items. Here is where a scale analysis is helpful. It tells whether or not the universe is scalable by using only a small sample of the items. Social phenomena are usually complex. However, if a scale is found to exist for a universe of phenomena, that means that a certain simplicity attends those phenomena. The theory of scales tells how to recognize and take advantage of that simplicity. If the phenomena do not follow a simple pattern, then scale analysis shows that a more complicated technique is needed to handle the data properly.

The prototype of scalogram analysis was the Bogardus Social Distance Scale. Scalogram analysis itself was originally conceived of by Louis Guttman in 1940. The theory was expanded and applied in the Research Branch of the United States Government in 1941 and was used in research throughout the war years.

Though originally intended as an aid to measure attitudes, it was found during this time to also successfully
measure morale, screen psychoneurotics, and predict after-war vocations. Since then Guttman and others have used scalogram analysis for sociological analysis including role conflicts. In addition, Riley et al. used this method of analysis to determine the structuring and perception of roles, status, and consensus.

Scalogram analysis has been commonly used in the field of anthropology to study culture synchronically and, more recently, diachronically. Goodenough, and Mahar were among those who used scalogram analysis to study culture synchronically, i.e., to study a particular aspect of culture across sections or across cultures at one point in time. Rose and Willoughby used this form of analysis to determine the distribution of arts. Freeman, Linton, and Winch used scales of social complexity to test if descriptions of gemeinschaft-gesellschaft (rural-urban) polarizations occurred along a single dimension. They were able to formulate a scale with an index of reproducibility of 97.

Yet it was Carneiro who was the first to make a diachronic study of culture using scalogram analysis; a diachronic study of culture being one which will "... involve the dimension of time and [which] may involve specific historical or broad evolutionary processes." Carneiro found that this method of analysis could be used successfully to determine cultural evolution over time.

In the cross-cultural context, Guttman scales were first used by Stephens who found that the extensiveness of
menstrual taboos formed a scalable hierarchy. These scales were refined by Young and Backayan.\textsuperscript{14}

Thus, in surveying studies which utilized scalogram analysis in the fields of social psychology and anthropology, it was found that the method had been used to determine attitudes, cross-cultural variations, and differences in cultures over time. Even though these three areas had not been studied simultaneously in one test, there did not appear to be any reason why they could not be successfully combined. Scalogram analysis would thus appear to be appropriate to this particular study.

**Measurement Types**

Most reported research found in the survey of acculturation in both fields of anthropology and speech communication has used one of the techniques of index rather than representational measurement. Index techniques used have ranged from the more indirect means of observation such as Rorschach Ink Blots and the Thematic Apperception Test to more direct measures such as the Likert scale. Yet the basic premise of these techniques is the same. Guttman scalogram analysis, however, is an interlocking technique which is a form of representational measurement. A representational measurement differs from an index measurement in that there is a two-way correspondence between the scale and the attribute measured rather than a simple one-way correspondence.
Index Measurement

Dawes states that "... index measurement occurs whenever a property of the thing being indexed determines a corresponding index, but not vice versa." An index measurement cannot be evaluated in terms of its internal consistency, but only in terms of whether or not it makes valid predications to external and uncertain events. In addition, a response to an item may be determined by factors other than attitude. Dawes would consider it a fallacy to interpret such tests literally stating that they should be evaluated only in terms of their predictive utility: the individual's response in and of itself does not provide a certain set of information.

Representational Measurement

Representational measurement is based on the idea of psychological brightness. Its core property is that of a two-way correspondence between the property of the construct being measured and the scale itself. In a representational measurement, the property defines the scale and the scale in turn defines the property. This means that the test may be evaluated in terms of its internal consistency in addition to being evaluated in terms of its predictive validity.

Psychological Brightness

Psychological brightness is found by one of the confusion methods. The one most commonly used is that of "just noticeable differences" in which
stimulus a is \ldots defined to be just noticeably different from stimulus b whenever it is judged to be more intense than b with probability .75. These just noticeable differences are regarded as units in the scale of psychological intensity.¹⁷

These units are cumulative magnitudes of the factor under consideration and may be used in contexts where no physical dimension parallels the psychological dimension under investigation.

Two-way Correspondence

With a representational measurement there is a two-way correspondence between the property of the construct being measured and the scale. This means that the property of the items being measured determines their scale position which in turn can be used to make inferences about the property being measured. For example, if several people are asked to choose between two apples, Apple A and Apple B, Apple A can be defined as the preferred apple as it is chosen significantly more frequently. But since Apple A is also larger than Apple B, preference can be defined in turn as the larger apple.

Thus the measurement scale represents the property. The thing ordered with its crucial property forms an empirical relational system. The measurement scale with its property forms a relational system.¹⁸

Validity

The validity of a measurement based on the confusion method is established by its consistency in prediction in
much the same way that the validity of a theory is established: it can never be proven to be valid; yet, until it makes inconsistent predictions, it is never disproven to be valid.19 These measurements are not as vague as index measurements nor are they as vulnerable to external and uncertain events. This is so because they make predictions about "the same class of events used to obtain the measure."20

Predictions are certain except for a malfunctioning of the instrument due to a lack of correspondence between technique and actual behavior in the domain due to experimenter ineptitude. Once the instrument is perfected, a representational measurement is more certain and elegant than an index measurement.

**Techniques**

Of the representational measurements, proximity techniques are used to find the basic dimensions, and magnitude techniques are used to find specific bits of information about the dimension. An interlocking technique such as the Guttman method of scalogram analysis goes even further than either of the above techniques in that its purpose is

... to represent both people and stimuli jointly—in such a way that order in the presentation reflects behavioral domination. For example, an individual judges that a particular beer is too tart; the beer may then be represented above the individual's ideal on a dimension of tartness. Or an individual endorses a monotone attitude statement; ... the resulting representation places the individual above the statement on a dimension of favorability toward its subject matter.21
Hence, the method of scalogram analysis seems to afford the best method of determining an individual's relationship to an item whether it is a skill or an attitude.

The Theory of Scalogram Analysis

In this division, a "working definition" of scalogram analysis will be set forth followed by some of the properties inherent in this representational measurement.

Scalogram analysis is basically a simple concept and process, "... a procedure for ordering individuals along a single dimension, at the same time testing the assumption that the several acts or items 'hang together' to represent a unitary concept."22 This is accomplished by means of rank order and internal metric.23

It has been explained that, in presenting this technique,

... Guttman offered a model which dispenses with the concept of a latent or underlying continuum to which the responses to a particular item is to be related. He considered an attitude "scalable" if responses to a set of items in that area arranged themselves in certain specified ways. In particular, it must be possible to order the items such that, ideally persons who answer a given item favorably all have higher ranks than persons who answer the same question unfavorably. From a respondent's rank or scale score we may know exactly which items he endorsed. Thus we can say that the response to any item provides a definition of the respondent's attitude.24

This is to say that Guttman scalogram analysis is an interlocking technique in which persons and responses are inseparable and cumulatively ordered in a stair-step pattern
along a continuum. The cumulated responses of all respondents determine the ranking of the scale items. The rank of the items last accepted by the person then places the person in an ordinal rank compared to all other respondents thus defining his attitude.

For example: if 10 people were told to mark whether or not they enjoyed each small Apple C, large Apple B, or huge Apple A, and one person marked that they enjoyed only small Apple C, three people marked that they enjoyed both small Apple C and large Apple B, and six people marked that they enjoyed all three apples, a Guttman scale would exist. No person chose Apple A without also choosing Apple B. No person chose Apple B without choosing Apple C. The responses of the people determined that Apple A should be given the highest rank and that Apple C should be given the lowest rank. Conversely those who chose only one apple were placed in a lower rank than those who chose two or three apples.

Reliability

The basic measure of the Guttman scalogram is the Index of Reproducibility (R) which indicates the reliability of the test. R in turn gives information about three areas: (1) the unidimensionality or homogeneity of the test (whether or not the test is measuring "the single meaning of an area"), (2) the cumulative properties of the area being scaled, and (3) the universe of attributes (i.e.,
whether or not the items chosen afford an adequate sample "representative of all possible questions").

Each of these, the index of reproducibility, homogeneity, cumulativity, and the universe of attributes will be discussed in turn.

The Index of Reproducibility

The index or coefficient of reproducibility has been defined as, "... the empirical relative frequency with which the values or the attributes do correspond to the proper intervals on the quantitative variable." In other words, it is the number of deviations from perfect correlation (i.e., how many people chose the combination of Apple C and Apple A, rather than Apple C and Apple B).

The deviation is computed as

(1) the question and answer categories are ranked in a preliminary order of extremeness with the "most extreme" category, i.e., the one which is endorsed by fewest people, placed first and the other categories following in decreasing order of "extremeness," and (2) the people are ranked in order of "favorableness" with the "most favorable" persons, i.e., those who answer all questions "favorably," placed first and the other individuals following in decreasing order of "favorableness." Next one

[counts] up the errors for each person on each item. If the errors of reproducibility are random, and if the population reproducibility is at least .90, then the standard error of a sample proportion of reproducibility is at most .013, which allows a deviation in the proportion of at most .040 at the three standard error level of confidence.
Since, "perfect scale scores are not to be expected in practice,"\textsuperscript{28} a scale score of 90-100 is now used as the "efficient approximation" of a perfect scale. In the early stages of testing, however, 85 was regarded as acceptable.\textsuperscript{29}

**Homogeneity**

Three degrees of homogeneity can be represented by the index of reproducibility. These are scale or unidimensionality, non-scale, and quasi-scale.

**Scale**

A scale is indicated when the index of reproducibility is 90-100. This shows that "... the responses to each item are in [as] close agreement as they should be in a homogenous test,"\textsuperscript{30} and defines a single continuum. This single continuum is

... a series of items each of which is a simple function of the scale scores [permitting] a clear-cut statement of what is meant by a rank-order based on a single variable ... a result of working with unidimensional universes ... \textsuperscript{31}

When the correlation is near perfect, only one dimension or one sub-set of a universe is being measured. Errors must be random.

For example, if and only if everyone who chose Apple A also chose Apple B and Apple C, and if everyone who chose B chose C, and if those who chose C chose only C, then a scale would exist. This would show that the preference of apples was based on size.
Non-Scale

A non-scale type is indicated when the index of reproducibility falls below 85-80 and there are non-random errors. When this occurs, two or more variables are present. Further dissection and reordering of the items may reveal two or more attitude sub-areas each of which might be scalable.32

With the apples, this would occur if some people were choosing apples based on preference by size and some people were choosing apples based on preference by color. Even though size has been determined to be scalable—all people who prefer large apples also enjoy small apples—color may or may not be scalable.

Quasi-Scale

A quasi-scale is found when the index of reproducibility is between 80 or 85 and 90 and the errors are random. These errors are caused by the presence of one dominant factor and a gradient of many small factors. For example, some people might base their apple preference on the size of the apple, but some might base their preference on color, or on shape, or on the number of worm holes. Each of these areas would be cumulatively scalable.33

The presence of a true quasi-scale can be determined by the Israel Alpha technique in which, "... the ideal types [of the image] form a perfect scale." The image of a quasi-scale is a scale of the coded responses that
"... expresses what the variable has in common with all the remaining variables in the universe for the population." 34

Even though a quasi-scale is not a "true" unidimensional scale, it is equally as good as a true scale for external prediction problems as, "... the prediction of the external variable rests on the dominant factor that is being measured by the quasi-scale scores." 35

In addition, quasi-scales are still an important means of scale measurement in that they:

... seem to enable one to take a large number of items which have some strong common content and to derive from their intercorrelations a score which permits a rank order independent of item weights. It would thus appear that quasi-scales offer a promising avenue of research into some complex areas which are neither scalable nor divisible into scalable sub-areas. While the single dominant variable of a quasi-scale cannot be represented by means of a small number of items due to the amount of error involved, increasing the number of items which contain this dominant variable makes this error assume a gradient pattern, and permits an invariant rank order. 36

For this particular study of acculturation, if the various scales of the dimensions show a high level of reproducibility and, thus, unidimensionality, it would indicate that each scale was measuring only one dimension, or aspect, of the construct, "acculturation." Thus each scale would be a simple, unitary dimension; yet, the complexity of the construct would be known in and because of the number and variety of sub-sets. "Acculturation" would be a factorially complex construct composed of sub-hierarchies along various dimensions.
However, if the index of reproducibility were to be lower, indicating the presence of quasi-scales, the construct, "acculturation," would be revealed as even more complex—each dimension would include two or more sub-sets of the construct rather than the unitary sub-set. This would indicate the need for more probing in the area and for a possible redefinition of the construct. Deviations from the norm would help to determine what is normal to the core of the acculturative process and what is peripheral and may help in the operational redefinition of the construct.37

**Cumulativity**

When the index of reproducibility is between 90-100, it indicates that a scale exists; i.e., that a single dimension is being measured, that the items are in a single continuum, and that the same common factor is being measured in all individuals in all items.38 As was seen with the quasi-scale, the items are in a gradient. In other words, the same common factor is being measured in all individuals, yet the items that each person has passed are of differential magnitudes so that the amount of the common factor found in each trait is cumulative.39

This leads to the following six formal properties of a scale.

1. A rank that is higher than another has all the properties of a rank that is lower plus one. Large Apple B has all the volume of small Apple C plus additional.
2. If one trait is known to be present in an individual by his rank score, then the person will also have all the traits which are below the known trait. If a person is known to enjoy Apple B, then he will also enjoy Apple C.

3. If one trait is absent, then all the traits ranked higher than it will also be absent. If a person does not enjoy Apple B, then neither will he enjoy Apple A.

Therefore:

4. If the scale score of an individual is known then the complete inventory of his traits (positive and negative) can be deduced. If it is known that a person likes Apple B, then it is also known that he likes Apple C and does not like Apple A.

5. Two persons with the same scale score should have responded the same to all items. Two persons with a scale score of 3 (they both like Apple A) should also both like Apple B and Apple C.

6. The rank order of an individual holds good for the individuals not only within this series of questions but in the entire universe under scrutiny. If a different set of questions representing the same universe were placed before the same individuals they would have the same rank order.

Hence, it is seen that scalogram analysis is cumulative based on the idea of functional prerequisites, i.e., the idea that trait a of necessity precedes trait b, so that is one possesses trait, or skill b one must first possess
trait or skill a. Since this technique does reveal cumulative properties, it would be the preferable scaling technique to use in this study since it would reveal whether or not the cognitive process of acculturation is indeed a cumulative process learned in a step-by-step manner over specific periods of time.

In addition, if a scale is cumulative along a single continuum it will form a matrix, a parallelogram which is readily scanned and coded (see Figure 1).43

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Figure 1. A matrix of a homogenous scale.

The Universe of Attributes

One of the basic premises of scalogram analysis is that if a universe contains a single variable then the individuals will have the same rank order regardless of the sample of questions used so that, "... from a sample of attributes we can draw inferences about the universe of attributes."44 If a scale is found to exist then inferences may be drawn about the whole universe under consideration.
But what is this universe? The universe is the concept which is being tested for scalability and consists of all attributes defining the concept. The universe is defined by the attributes assigned to it by virtue of their content which is the title given them by the researcher; i.e., the hypothesis or attitude under question. 45

For example, in this instance the experimenter's hypothesis might be that "acculturation is scalable"—that the integration of new values does not occur until new behavioral patterns or new artifacts have been integrated. His sample of attributes is a series of checks to determine which traits, behavioral patterns, and values, if any, have been integrated. If this series scales, then an inference can be drawn about the universe of attributes—that acculturation is cumulative dependent on the order of trait or element acquisition.

Sampling of this universe is intuitive. In addition, item selection can be improved after the initial run by use of the H-technique in which two or more items are used to determine the cutoff point rather than one item as in scalogram analysis. 46

Scale analysis does not define or judge content; "... it presumes that the universe of content is already defined, and merely tests whether or not the area is representable by a single variable." 47 A scale does not define the universe nor does it define whether or not a
universe is scalable. It merely represents and illuminates that which already exists. If enjoyment of apples was not a cumulative property based on the size of apples, no scale would be apparent in the testing.

However, even when the scale is reliable and does accurately represent the universe of attributes, it is still relative to time and to populations. One must be wary especially of the latter as different populations may define the issues differently. The samples and, hence, universes would then differ not in degree but in kind. 48 Foreign students might define acculturation in terms of adaptation to the university situation. For overseas businessmen, acculturation would be defined by their colleagues, employers, and employees. The basic process of acculturation would be the same in either case, but different populations might understand and identify with different sets of items.

Predictive Validity

In scaling, an attribute is reproduced from a quantitative variable, e.g., preference in enjoyment of apples is reproduced from the size of apples. In prediction, this attribute is then used to predict the variable. (How much one enjoys apples will be determined by which apple was chosen, A, B, or C.)

When the index of reproducibility is between 90-100 the items have a multivariate distribution that is scalable, [and] it can easily be seen that no matter what the outside variable may be, the same prediction
weights may be given to the items. The correlation of any outside variable with the scale scores is precisely the same as the multiple correlation of the outside variable with the items in the scale. Thus, we have an outstanding property of scaling, namely, that it provides an invariant quantification of the attributes for predicting an outside variable. No matter what prediction purpose is to be served by the attributes, the scale scores will serve that purpose. 49

Even though the scale scores are stable for predictive purposes, the success of the items and hence prediction depends on some very human factors. Predictive validity is most likely to be successful when there is a fair degree of correspondence between the origin, test, and criterion situation. The items should be unambiguous: i.e., they must be interpreted in only one way, the individual should be able to understand what the author is trying to test; and the individual should respond to the test item using the same criterion that the author intended when he wrote the test. 50

Because of the formal relational system existing between the property under measurement and the scale (homeomorphism), prediction is certain except for a malfunctioning in the instrument. If the instrument does not predict, it is due to the experimenter's lack of observation and/or technique and the actual behavior in the universe under consideration. 51

Reliability and validity are interdependent in scalo­gram analysis. Yet there is a conflict between maximal
reliability and maximal validity in that, generally, the former requires high inter-item correlations and the latter, low. The problem is easily solved, though, by using a battery of tests to determine the profile of an attribute. Each individual test should aim at high reliability while the whole battery should aim at high validity; i.e., there should be homogenous tests within heterogenous batteries.

A useful average for inter-item correlations in such a battery would be between .10 and .60. However, since the items are important in and of themselves as attributes of the universe and are not merely means of prediction, inter-item correlations for scalogram analysis are not as important in determining the reliability of a scale as they are in determining the reliability of some other kinds of tests.

Criticisms

Seven major criticisms have been made of the method of Guttman scalogram analysis: (1) the criterion of scalability is rarely achieved, (2) if scalability is achieved, there is a question whether the score is univocal or a uniform combination of two or more factors, (3) there is no effective means of item selection, it is by investigator luck only, (4) there are no rigorous rules for combining response categories and for counting errors of reproduction, (5) reproducibility is related to response popularity, (6) that it "... favors groups of items that turn out to be
virtually rewording of the same content, in which case the variable emphasized could well be a specific factor rather than a common factor,\textsuperscript{54} and (7) that [a] the cutoff point is too lenient, or [b] that the cutoff point is too stringent.\textsuperscript{55}

In response it can be mentioned that the cutoff point for a scale is an arbitrary point analogous to .05.\textsuperscript{56} Since the first use of scalogram analysis some standards have changed with experience. But it has been found through continued use that a Guttman R of 90 offers both high test-retest reliability and satisfactory external validity.\textsuperscript{57} Scales with an R of 100 are not to be expected in practice, but scalability between 90-100 has been achieved in many studies.

The most relevant criticisms for this study--those deploring methods of item selection and of counting and combining of errors and response categories--are valid. The process does depend heavily on the investigator's own astute observations and common sense recognition of the relevant items and processes involved in the particular area under consideration. Newer techniques such as the Israel Alpha technique and the H-scale should help to improve this somewhat.

In spite of these problems, scalogram analysis seemed to be the appropriate measure for this study as it would clarify whether or not phenomenological dimensions of
acculturation were cumulative existing in scalable form and whether these dimensions are unidimensional.

**Summary**

In this chapter, criticisms of Guttman scalogram analysis were given, the basic theory underlying the method was explained, the technique was located and explained as a form of representational measurement, and its usage was made known.

Theoretically, scalogram analysis has two properties which would help illumine the construct acculturation. These are the properties of cumulativity and homogeneity. Guttman scalogram analysis was also found to be applicable to the study because of its strength as a representational measure. In addition, scalogram analysis had been used in analogous studies in other disciplines, so it seemed to be the appropriate measure to use in this investigation.
Chapter 3--Notes


2X²-test in Siegel, p. 175; Kruskal-Wallis in Siegel, p. 185.


4Ibid. 5Ibid., p. 172. 6Ibid., p. 61.

7Ibid., pp. 11-15.


12Hunter and Whitten, eds., p. 378.

13Carneiro, pp. 149-160.


16 For further discussion see Ibid., pp. 15-16, 106.

17 Ibid., p. 5. 18 Ibid., p. 11.

19 Ibid., pp. 10-11. 20 Ibid., p. 147.

21 Dawes, p. 44; for a discussion of magnitude techniques see p. 20; for a discussion of proximity techniques see p. 29.

22 Riley et al., p. 18.

23 Stouffer et al., p. 12. 24 Ibid., p. 5.


26 Stouffer et al., pp. 88-89.

27 Ibid., p. 77. 28 Guttman, p. 140.

29 Ibid., p. 150.


31 Stouffer et al., p. 155. 32 Ibid., p. 6.

33 Ibid., p. 160. 34 Riley et al., p. 410.

35 Stouffer et al., p. 162. 36 Ibid., pp. 162-163.


40 Discussion of formal properties drawn from Carneiro, p. 153.

41 Guilford, p. 460. 42 Stouffer et al., p. 155.

43 Ibid., pp. 88-89. 44 Ibid., p. 81.

45 Ibid., pp. 81-84.
For further discussion on the H-technique see also Ibid., p. 372-389; for a further discussion of the halo effect see Stouffer et al., pp. 163-168.

Stouffer et al., p. 85.

Ibid., pp. 168-169.  

For further discussion see Stouffer et al., pp. 483-484.

For further discussion see Dawes, pp. 11-15, 147.

Guilford, pp. 523-524.  

Guilford, p. 461.  

Ibid.
CHAPTER IV

METHODS AND PROCEDURES: GENERAL PROCEDURES

Once the scaling method was determined and found to be reliable, the rest of the study could be conducted. In this chapter, the operational hypotheses will be given. This will be followed by the methods and procedures which were used to test them.

Research Hypotheses

The three primary and the three secondary theoretical hypotheses can be restated as thirteen research hypotheses.

Hypothesis I. Acculturation is a scalable construct along various posited phenomenological dimensions.

Three criteria will be used to assess scalability:

1. A reliable and valid scale of a dimension will have an Index of Reproducibility greater than or equal to 84.
2. Scales will be accepted as reliable at .01 level of confidence.
3. Inter-item correlations should be low to moderate.

Hypothesis II. Acculturation is a factorially complex construct which can be defined as an amalgam of sub-hierarchies along various
phenomenological dimensions which may or may not be related to each other.

1. All phenomenological dimensions are related to the construct "acculturation."

2. Sub-hierarchies of the construct, "acculturation," may or may not be related to each other.

Hypothesis III. A scaled self-report of the degree of perceived competency reached on a scale of a given phenomenological dimension of acculturation is related to actual behavior on that dimension as determined in other studies and defined by other variables. The relationship may vary according to other variables and may or may not be linear.

Secondary hypotheses and research hypotheses defining the third theoretical hypothesis are as follows:

A. Perceived level of difficulty of the items parallels the actual order of difficulty of trait acquisition.
   1. Item ranks will parallel Linton's order of trait acquisition.

B. Perception of ability may be congruent or incongruent with the actual level of ability as defined by the amount of contact with host
nationals due to the processes of differentiation/overgeneralization.

1. Scale scores will vary with time-in-country.
2. Scale scores will vary with the amount of time spent living with host nationals.
3. Students carry a "sliding-scale" of progress in communicative ability.

C. Other variables affect the response pattern on scaled self-reports of perceived level of acculturation.

1. Scale scores will vary with national background.
2. Scale scores will vary with intention of permanent residency.
3. Scale scores will correlate with perceived status and position.
4. Scale scores will correlate with perceived ability to communicate.

General Procedures

In this division a discussion of the pre-test will be followed by a discussion of the subjects, testing conditions, and data analysis. Last, some of the procedural choices made will be explained.

Pre-Test

Pre-test data were gathered from three sources:
(1) personal experience, (2) a survey of English as a
Second Language (ESL) students who had been in the United States for less than one year, and (3) in-depth interviews with foreign students who had been in the United States one to seven years.

The interviews were abstracted, and data from the interviews and surveys were then subjected to an informal content analysis. Statements which appeared to pertain to different posited dimensions of acculturation were grouped together. A test comprised of representative statements was given to several students. However, the items were found to be too complex and subjective, the dimensions, too vague. All dimensions except that of linguistic competency were abandoned. The test was rewritten in a Guttman format along nine dimensions.

Subjects

The actual testing was done in three generations and involved students from Asia, Africa, the Middle East, Europe, and South America. Subjects (Ss) for Generation 1 were drawn from two classes at Portland State University, a moderately-sized urban university. Fifteen Ss came from the writer's class Introduction to Intercultural Communication. A broad range of ages and various amount of time in the United States were represented by this group. Sixteen Ss came from students in a third-level English 110 class, English as a Second Language.
During Generation 2 tests were administered at both Portland State University and Lewis and Clark College, a small, private college in the suburbs. The breakdown of responses from Lewis and Clark is as follows. Of the 54 students who were in the ESL program only, 8 responded (14%); 2 out of 13 students who were half-time in the ESL program and half-time in regular classes responded (15%); 22 out of 64 foreign students who participated full time in regular classes responded (34%). The one permanent resident of alien status did not respond; four students whose status was undetermined responded. Total N was 36 out of 132, a response rate of 27%. The complexity of the test, the timing of its administration, and its optional return probably precluded a high response rate.

At Portland State University during Generation 2, the total N was 14, a response rate of 45%. Tests were given to 20 ESL students and to 11 students who were colleagues or members in an upper division psychology class which dealt with problems of adjustment to the United States.

Generation 3 was administered only at Portland State University. There were 14 Ss from the writer's speech class, Introduction to Intercultural Communication, and 14 Ss from a moderate level ESL class.

Testing Conditions
Testing conditions were approximately the same for Generations 1 and 3 but were quite different for Generation
2. For Generation 1 a colleague administered the test to the writer's class by reading aloud the directions given on the page marked "To the Respondent." Ten minutes were allowed for completion of Part I, Demographic Data (see Appendix A.) Approximately 30 minutes were allowed for responding to the actual scales. Translation help was given during the test. The purpose of the test was explained later. The same administration procedure was used by the writer in the ESL, English 110 class.

The same general procedure was followed for Generation 3. A colleague administered the test in the writer's class using the same basic procedures. However, as the demographic data were now at the back of the packet, 40 minutes uninterrupted response time was allowed. Students were debriefed later. The writer administered the test in the English 110 classroom. The same procedure was followed, but only 30 minutes response time was allowed.

Generation 2 was administered in a proctorless situation. At Lewis and Clark College, the survey was placed in the mailboxes of all foreign students with a cover letter indicating that it had been approved by the foreign student advisor on campus (see Appendix B). Full instructions were on the page marked "To the Respondent" and demographic questions were placed at the back of the packet (see Appendix B). Follow-up letters and phone calls were placed later as the response rate was slow.
At Portland State University, the test was passed out as an optional homework assignment in an ESL class. The only instructions given were that it be returned to class by the following week. The test was also given to students in an upper division class and to colleagues. As the tests were returned the purpose and method were explained.

Data Analysis

Data analysis will be presented in three sections—scale development, construct definition, and the relationships between test results and demographic data.

Scale Development

Generation 1

After perusal of DeYoung, simple concrete items were written and randomly ordered within six posited phenomenological dimensions. These were: II. I Understand American . . . , III. I Understand American Reactions to My . . . , IV. Americans Understand My . . . , V. Americans Understand My Reaction to . . . , VI. I am Comfortable with American . . . , and VII. I am Satisfied with My . . . . Some items were left out of some dimensions due to inappropriateness. Other items were ordered into I. Linguistics and VIII. Americans . . . . Each dimension was placed on a separate page and placed in a packet with two pages of bibliographic data to be completed (see Appendix A).
Data was hand-tabulated and Guttman's reproducibility was obtained for each scale.¹

Coefficient of Reproducibility = 

\[
1 - \frac{\text{number of errors}}{\text{number of questions} \times \text{number of respondents}}
\]

Generation 2

Ambiguous items, items with a high error rate, and some obviously non-monotonic items from Generation 1 were discarded. These last items were items that two sets of people could respond to. A new scale dimension, IX. I am Comfortable . . . was added, and the demographic data was placed at the back of the packet (see Appendix B). The test was readministered.

Since the response rate was so low from Lewis and Clark College, responses from Lewis and Clark College and Portland State University were tabulated separately to determine if the populations were similar on three randomly selected scales. No major differences were found in the R's. So, the Lewis and Clark and Portland State populations were combined and results tabulated for all dimensions. Since items were not placed in the same hierarchical rank order that they had been ranked in during analysis of Generation 1, the stability of the new R's was left in some doubt. It was decided to retest.
Generation 3

At this time scale items were kept only if they met three criteria: (1) they did not change their relative rank position between Generations 1 and 2, (2) they had a low error rate, and (3) they were the more clearly worded in the case of tied ranks. Scales V and VI were completely discarded due to the instability of their items (see Appendix C). The test was administered a third time. When tabulated, items were given the same rank order they had had in Generation 2 except for the items on Scale VII. These items were ranked in ascending order of positive responses since the scale had been drastically modified after the Generation 2 analysis. Scale III was dropped from all further analysis since its R fell below .83 and had sharply dropped from the R score it had obtained in Generation 2.

After all the data were in, Kuder-Richardson's 20, a test for reliability, was run on all the remaining scales from Generations 2 and 3.  

$$rtt = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\Sigma pq}{\sigma^2_t} \right)$$

The reliability was corrected (Horst Correction for Uneven Item Marginals). 

$$\sigma_m^2 = 2\Sigma p_s - Mt(1+Mt)$$

$$rtt \ (corr.) = \left( \frac{\sigma_t^2 - \Sigma pq}{\sigma_m^2 - \Sigma pq} \right) \left( \frac{\sigma_m^2}{\sigma_t^2} \right)$$
The significance of rtt (corr.) was tested by the F-ratio.\(^4\)

Finally, the inferred average inter-item correlations were found.\(^5\)

\[
\frac{\text{rtt}}{k + (1-k)(\text{rtt})}
\]

This measure is an estimate of the correlation of each scale with a hypothetical scale that would be one item in length.

**Construct Definition**

The heterogeneity of the battery was measured by two different tests. Pearson's product-moment correlation coefficient \((r)\) was computed on the psychometric scores of each scale.\(^6\)

\[
r_{xy} = \frac{S_{xy}}{S_x S_y}
\]

This was a parametric measure of between scale correlations. A non-parametric measure of between scale correlation (Spearman's rho)\(^7\)

\[
rs = \frac{\sum (i-1)^2}{N^2-N}
\]

was computed for Guttman's R's.

At this point Generation 3 was dropped from all further analysis due to insignificant Kuder-Richardson 20 reliability on some scales. For the "successful" scales of Generation 2, the homogeneity of the total battery and hence of the construct, "acculturation," was determined by use of Kendall's coefficient of concordance:W\(^8\)
\[ W = \frac{5}{1/12 \, k^2 (N^2 - N)} \]

**Relationships**

Relationships between a person's response to the scales and other variables were determined in three sets of procedures: (1) a notation of item ranks, (2) a determination of the independence of the samples, and (3) measures of correlation.

**Item-ranks**

The perceived (i.e., ranked) order of item difficulty across the scales was compared with Linton's "educed order of cultural trait acquisition." This provided a check on the perception of difficulty.

**Independence of Samples**

Both the \( \chi^2 \) test for \( k \) independent samples and the Kruskal-Wallis one-way analysis of variance by ranks for large samples corrected for ties (H) were used to determine if different populations were indicated by differences in (1) time-in-country, (2) percentage of time spent living with Americans, (3) nationality, and (4) intention of permanent residency.

\[ X^2 = \sum_{i=j}^{r} \sum_{j=1}^{k} \frac{(C_{ij} - E_{ij})^2}{E_{ij}} \]
Correlations

Spearman's Rho was used to determine any correlation between perceived ability to communicate (question 27, demographic data) and perceived status (question 28, demographic data) and scale scores.

A simple computation of the mean and median were used to determine the possibility of an internal "sliding-scale" which would affect perception of communicative abilities and thus cause inflated scale scores.

Procedural Explanations

Following are some notes on the procedures used for scale construction and determining the relationships between scale scores and other variables.

Scale Construction

In this section, item choice; source, choice, and meaning of the dimensions; and demographic data will be examined.

Item Choice

Basically, items for dimensions II-VII and IX were chosen to represent various traits that could be acquired. These included concrete traits (food), behavioral patterns
(customs), and abstractions (goals and philosophies). These latter were deliberately left undefined, although, if a student didn't understand the meaning of a word, a verbal definition might be given.

Items for dimension I. Linguistics were chosen from the original surveys and interviews and from observations made by teachers of English as a Second Language. Items for dimension VII. Americans . . . were selections from and modifications of the dimensions of competency, empathy, and affiliation/support in the "Test of Effectiveness in Interpersonal Communication" by John Wiemann.12

Source, Choice, and Meaning of Dimensions

**Dimension I. Linguistics.** This dimension directly measured the student's felt competency in the English language in an objective, true-false manner. It was included as it seemed basic to acculturation. If a person were not proficient in the language, it would be harder for him to interact in a wide variety of social situations and to comprehend the abstractions behind the behaviors.

**Dimensions II-VII and IX.** These dimensions were based on the premises set forth in Chapter 1 that degrees of satisfaction and comfort with, and understanding of traits reflected degrees of acculturation.
Dimension II. I Understand American ... was an attempt to directly measure comprehension. It was based on the supposition that if a person says that he understands a trait he is likely to (a) comprehend it and the system which embeds it, at least on that level, and (b) have internalized the trait. The more one says he understands the more one is acculturated.

Dimension III. I Understand American Reactions to My ... was based on the premise that if a person said he understood American reactions to his behavior two things would be occurring: (1) he would probably be in a fair amount of contact with Americans in order to know that they were reacting to his behavior, and (2) as he would be interacting with Americans and understanding their reactions to his behavior he would come to see that there were two different systems in operation and might begin to sense the amount of disparity between the two.

A high scale score on dimension IV. Americans Understand My ... would indicate a moderate degree of involvement with Americans and their thought patterns and would show that the student was becoming involved in the American thought processes. Dimension V. Americans Understand My Reaction to ... would in an indirect way test the level of interpersonal involvement. For a student to get a high scale score he would have to know the American reaction to his own thoughts and would have to feel that Americans were
in some degree of empathy. This could occur only with a fairly high development of verbal and interpersonal skill after much time in interaction.

**Dimensions VI, VIII, and IX.** These dimensions were more direct measures of acculturation than were the "understanding" dimensions, II-V.

The two "comfort" dimensions, VI and IX would test a much more basic level of acculturation than would any of the dimensions testing for understanding. Nevertheless, discomfort with certain traits inhibits the use of those traits even though it may not check the actual understanding of such. Dimension VI. I am Comfortable with American... tested to see how comfortable the student felt in observation of and interaction with Americans going about their daily tasks. If a person is comfortable with what someone else is doing, he is more likely to adopt it or to have already done so. Dimension IX. I am Comfortable... measures how comfortable the person is while actually participating in American life. If one is comfortable doing something, one may or may not understand, but at least one is beginning to integrate into the social structure.

The idea for and some of the items for dimension VII. I am Satisfied with My... sprang from part of Morris' discussion in *The Two-Way Mirror* in which he states concerning satisfaction:
In view of the relation between academic difficulty and language difficulty (significant at the .05 level), we can construct, provisionally, an even longer chain of variables: students who have language difficulty have a harder time adjusting academically; this requires more time for study; this in turn cuts down the amount of time which can be spent with Americans, which results in dissatisfaction with the stay here . . . 13

If the above is true, then this dimension would be scalable. A person with a high scale score should have integrated many levels of behavior and be interacting in some depth with Americans.

**Dimension VIII. Americans...** This dimension was somewhat a measure of interpersonal competency. The respondent was asked to judge Americans' interpersonal competency. Even though some of the statements were obviously stereotypic and were biased toward American cultural patterns a high scale score would most likely show that the respondent could interact easily with Americans, would probably have some close American friends, and would understand the principles behind the American form of interaction.

The possibility that two kinds of people—those with little comprehension and those with high comprehension, those who thought they understood and those who actually understood—were both receiving high scale scores could be determined through correlation with outside variables.

Demographic Data

The information asked under demographic data were all data that had been found to influence adjustment in previous
studies. The data survey itself was moved from the front to the back of the packet to prevent biased and contaminated responses to the test items.

Relationships

In previous studies of acculturation five variables appeared to be salient in determining the rate and degree of acculturation: the length of stay, the amount of time spent with Americans, nationality, the intention of permanent residency, and national status (see Chapter 1). Perceived ability to communicate and perceived rate of progress also seemed as if they would be of consequence.

In the actual data analysis, time-in-country and the percentage of time spent living with Americans were used as the indicators of the amount of contact a foreigner had with Americans. Students were divided into one of four categories for both time-in-country and percentage of time spent living with Americans. Time-in-country was divided at 0-5, 6-12, 13-29, and 30+ (30-216) months. These divisions had been found to represent important stages in the processes of trait acquisition, perceptual growth, and socialization in personal interviews and in comparison with previous studies.

The classifications for the percentage of time spent living with Americans were as follows: L-L (students who had spent less than 30 months in the United States and less than 75% of their time living with Americans), L-H (less
than 30 months in the United States but 75% or more time spent living with Americans), H-L (those who had spent 30 or more months in the United States but less than 50% of their time living with Americans), and H-H (30 or more months in the United States, 50% or more time living with Americans).

Nationalities were grouped into four major categories: Japanese, Asian (all Asians from India to the Philippines, exclusive of Japanese), Middle-Eastern (Persian and Arabian countries), and Other (European, African, and South American states). The inadvisability of some of these groupings is recognized. However, the numbers of students in some categories and the statistical measures used enforced these classifications.

Summary

In this chapter, the operational hypotheses were set forth as were the procedures for testing these hypotheses. After writing and refining Guttman scales of nine phenomenological dimensions of acculturation through three generations of testing, the complexity of the construct, "acculturation," was determined. The relationships between scale responses and other variables was also determined.
Chapter 4—Notes


5Guilford, p. 359. 6Glass and Stanley, p. 113.


8Ibid., p. 231. 9Ibid., p. 175. 10Ibid., p. 185.


CHAPTER V

RESULTS AND DISCUSSION:
SCALABILITY.

Since each of the theoretical hypotheses required a different type of testing instrument or measurement and since each hypothesis was dependent on the preceding one, the test results and discussion of each theoretical hypothesis will be presented in separate chapters. Chapter 5 will present the results and discussion of the scalability hypothesis; Chapter 6, the construct hypothesis, and Chapter 7, the relationship hypothesis. The final chapter, Chapter 8, will summarize the results and discussion and will present some ideas for further research.

Within each chapter, the relevant theoretical and operational hypotheses will be restated. These will be followed by the test results and a discussion of such.

Hypotheses

Theoretical Hypothesis I:
Acculturation is a scalable construct along various posited phenomenological dimensions.

Operational Hypotheses:
1. Each of the various posited phenomenological dimensions of this study will be considered
to form a reliable and valid scale if the Index of Reproducibility (Guttman R) is greater than or equal to 84.

2. A scale of a phenomenological dimension of acculturation will be considered reliable at a greater than or equal to .01 level of significance.

3. Inferred average inter-item correlations on a reliable scale of a given phenomenological dimension of acculturation will be less than .60.

Results

Guttman's R was found for each scale in all three generations. Reliability of the R was found by use of Kuder-Richardson's 20, the Horst Correction for Uneven Item Marginals, and the F-test for selected scales in Generations 2 and 3. Lastly, the inferred average inter-item correlations were computed. The results are summarized in Table I.
### TABLE I

INDEX OF REPRODUCIBILITY (R), RELIABILITY (rtt), RELIABILITY CORRECTED (CORR.), AND INFERRED AVERAGE INTER-ITEM (INF. COR.) CORRELATIONS FOR SELECTED SCALES GENERATIONS 1, 2, AND 3

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Generation 1 (PSU)</th>
<th>Generation 2 (I&amp;C)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>R</td>
</tr>
<tr>
<td>I. Linguistics</td>
<td>31</td>
<td>81.5</td>
</tr>
<tr>
<td>II. I Understand American...</td>
<td>29</td>
<td>85.7</td>
</tr>
<tr>
<td>III. I Understand American reactions...</td>
<td>28</td>
<td>84.3</td>
</tr>
<tr>
<td>IV. Americans Understand My...</td>
<td>26</td>
<td>89.9</td>
</tr>
<tr>
<td>V. Americans Understand My Reaction to...</td>
<td>27</td>
<td>85.5</td>
</tr>
<tr>
<td>VI. I am Comfortable with American...</td>
<td>27</td>
<td>85.7</td>
</tr>
<tr>
<td>VII. I am Satisfied...</td>
<td>30</td>
<td>82.5</td>
</tr>
<tr>
<td>VIII. Americans...</td>
<td>30</td>
<td>78.6</td>
</tr>
<tr>
<td>IX. I am Comfortable...</td>
<td></td>
<td></td>
</tr>
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</table>
TABLE I--Continued

<table>
<thead>
<tr>
<th>Generation</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(combined PSU and L&amp;C)</td>
<td>(PSU)</td>
</tr>
<tr>
<td>N</td>
<td>R</td>
<td>rtt</td>
</tr>
<tr>
<td>49</td>
<td>90.4</td>
<td>.547</td>
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<td>47</td>
<td>83.9</td>
<td>.556</td>
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<td>45</td>
<td>84.7</td>
<td></td>
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<td>44</td>
<td>84.6</td>
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<td>46</td>
<td>86.2</td>
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<td>47</td>
<td>87.3</td>
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<tr>
<td>46</td>
<td>82.2</td>
<td>.597</td>
</tr>
<tr>
<td>46</td>
<td>84.2</td>
<td>.39</td>
</tr>
</tbody>
</table>

*Sig. at .05 level of confidence (F-test)
**Sig. at .01 level of confidence (F-test)
Hypothesis I

Generation 1

The Guttman R for the original scales ran between 78.6-89.6. These can be classified as quasi-scales.

Generation 2

R appeared to remain stable. However, since item rank orders were not kept, the stability of the R might be suspect. R for Scale VIII increased 3.6. Scale VII improved at +4.2. R for Scale I increased from 81.5-90.4 making it a unidimensional scale. Improvement on all scales might have been due to a shortening of the tests and to the dropping of ambiguous items.

The response patterns of populations drawn from Lewis and Clark College and Portland State University on randomly selected scales did not appear to be significantly different.

Generation 3

R fell in excess of 4.0 for Scales I, III, and IV between Generations 2 and 3. It remained stable (+.7) for IX; and rose in excess of 4.0 for Scales II and VIII.

Hypothesis II

In Generation 2, R was significant at .01 level of significance on all scales.

In Generation 3, R was significant at .01 level of confidence for Scales I, II, VIII, and IX. R was significant
Hypothesis III

Inferred average inter-item correlations were low to moderate for all scales in both Generations 2 and 3. The lowest was .03 for Scale VII. I am Satisfied ... (Generation 2). The highest was .351 for Scale II. I Understand American ... (Generation 2). In Generation 3 the lowest inferred correlation was .080 on Scale VII. I am Satisfied ... The highest was again on Scale II. I Understand American ... at .246.

These low inter-item correlations are preferred in a battery of Guttman scales (see Chapter 3).

Discussion

The criterion for scalability was originally defined as $R = 84.0^+$. This was justified by Guttman's original criterion of $85^+$. An $R$ significant at 84 was found to exist for six scales in Generation 2 and for five scales in Generation 3. All but one of these (in Generation 3) were found to be reliable at .01 level of confidence. These were accepted then as quasi-scales, indicating that two or more sub-sets were being measured, but not as unidimensional scales.

The appearance of quasi-scales rather than homogenous scales may have been caused by (1) the true measure of two
or more sub-sets within each dimension, or (2) experimenter ineptitude: reliability may have been lowered due to ambiguity in language or response criteria. Each of these aspects will be discussed in the sections below as will the further determination of sub-sets and the effect on prediction.

Scalability

Internal Difficulties

Language

Many of the words used in the test were abstractions ("goals," "values") with no set definition (i.e., the language was ambiguous). Each student could have been defining each word in a different way. There was no control for this.

Beginning English students found difficulty even with such words and phrases as "manners" and "how Americans act with me." Although the tests were coded for general English language ability, no control was made for this in tabulation. If the language were simplified, if some control were made for abstractions, and if some control were made for English language ability, the quasi-scales might be found to be closer to true scales: one of the sub-sets that might have been integrated into and measured by all the scales might have been linguistic ability.
Response Criteria

It was thought that it would be preferable to have a self-anchoring test in order to have realistic responses as the students reported on their perception of their competency. Therefore, no standards were given with which they could compare their behaviors and feelings. Yet had such standards been given, disparity between actual and perceived behaviors might have been lessened and thus, a more stable response pattern may have become apparent.

For example: a new student is still in the honeymoon stage where everything is new and exciting and in which he thinks he understands or can cope with much that is occurring. Especially if he has been studying a lot he may not hesitate to state, "yes, I understand American goals and philosophy." He might still hesitate, though to state that he understands American customs. This is the reverse of what is expected according to Linton's notation of the progression in acculturation.

However, if the student were forced to compare himself with other students that had been in the same situation a much longer period of time, he might be more hesitant to mark that he understood American goals and philosophies. This would be a closer reflection of the actuality and would give a response pattern closer to the expected.

A check against the disparity between actual behavior and self-perception of behavior could be built into the
test fairly easily by one of two methods for Scales I, II, IV, VII, and IX. The first would be by simple comparison, the second would be by using trichotomised rather than dichotomised answers. Even though this latter method would provide an excellent profile, it would be difficult to compute. Computer aid would be necessary, or one could use the H-technique (see Chapter 3). If this latter were used, a positive response on the second item would be scored as a positive response to either the first or third item to determine the reliability.

Example A, below, is an actual test item; B is the comparative form, and C, the trichotomised.

A. Circle one

yes no I am comfortable using American customs.

B. Circle one

yes no I am more comfortable using American customs than most foreign students in the United States.

C. Circle one

1. **I am more comfortable** using American customs than most foreign students in the United States.

2. **I am as comfortable** using American customs as most foreign students in the United States.

3. **I am less comfortable** using American customs than most foreign students in the United States.
Analysis of Quasi-Scales

Scales could have been tested to see if they were true quasi-scales by use of the Israel Alpha technique (see Chapter 3). In addition, a factor analysis might have been run to determine which sub-sets were being tested across which dimensions. If this were done, the sub-sets could possibly be factored out and the true scales found.

Validity

A quasi-scale is a type of scale in and of itself. Its validity can be determined by means other than by reliability. And even though it is not a homogenous scale, a quasi-scale is still valid for external prediction, since prediction rests on the dominant factor being measured (see Chapter 3).

Scalable Dimensions

Acculturation was found to be scalable along the six dimensions of I. Linguistics, II. I Understand American, VI. I am Comfortable with American, VII. I am Satisfied, VIII. Americans, and IX. I am Comfortable. These scales were straightforward, direct observations on linguistic ability, understanding, satisfaction, comfort, and interpersonal relations. These dimensions are related to the dimensions which other researchers have found to be satisfactory indices of acculturation (see Chapter 1).

Three dimensions did not scale: III. I Understand American Reactions to My ... , IV. Americans Understand
My . . ., and V. Americans Understand My Reaction to . . .

One reason for their failure may have been the level of item complexity. They dealt with reactions, and reactions to reactions. The subtlety of these items would have been difficult for even native English speakers to respond to, let alone someone just learning the language. Simpler items with a built-in response criterion might have made R more stable.

It may also be that understanding at these levels of meta- and meta-meta-perspective truly does not reflect perceived levels of acculturation. These levels may be so covert that item responses are mere guesses at feelings that barely exist.

Testing Conditions

Testing conditions in Generations 1 and 3 were stable and relatively good: a standard introduction prevailed as did a standard response time. However, the allotted response time could have been longer.

Testing conditions in Generation 2 were quite different from the conditions found in Generations 1 and 3. All students in Generation 2 had the same conditions—unlimited time, use of dictionary, and instructions not to speak to other foreign students. Yet there was no direct control over response conditions nor could there be a standard response provided to vocabulary questions. The possibility
of selective bias in those who completed and returned the survey may also have limited the range of response types.

Overall, testing all students at one time in one room with proctors and 1-1 1/2 hours allotted time would be the preferable conditions.

**Summary**

In this chapter, it was seen that the primary theoretical hypothesis that acculturation is a scalable construct along various posited phenomenological dimensions is valid for quasi-scales even if it is not necessarily valid for homogenous or unidimensional scales.

In Generation 1 five quasi-scales were found to exist for eight dimensions. In Generations 2 and 3 six quasi-scales were found to exist for nine dimensions. This supported the first research hypothesis that posited phenomenological dimensions of perceived level of acculturative competency were scalable.

All six quasi-scales from Generation 2 and four quasi-scales from Generation 3 were found to be reliable at .01 level of confidence. All twelve of these scales were found to have low inferred average inter-item correlations.

Quasi-scales rather than true scales might have been found because of linguistic difficulties or uncertain response criteria, or because several sub-sets were being measured throughout. Nevertheless, the quasi-scales are accurate enough for making external predictions.
Chapter 5--Notes

CHAPTER VI

RESULTS AND DISCUSSION: THE CONSTRUCT, "ACCULTURATION"

In this chapter, the complexity of the construct, "acculturation," will be explored.

Hypotheses

Primary theoretical Hypothesis II:

Acculturation is a factorially complex construct which can be defined as an amalgam of sub-hierarchies along various dimensions which may or may not be related to each other.

Operational Hypotheses:

1. All phenomenological dimensions are related to the construct, "acculturation," if the degree of concordance found is significant at .01 level of confidence.

2. Sub-hierarchies of the construct, "acculturation," may or may not be related. Pearson's product-moment correlation coefficient (r) or Spearman's rho (rs) significant at P < .05 level of confidence will show a relationship.
Results

Two different tests of correlation were run to determine the amount of interrelationship among the various dimensions. One test of concordance was run to determine if all the dimensions together were measuring the same construct.

Pearson's $r$ was found for the six quasi-scales in Generations 2 and 3. The Ss psychometric scores (the total number of items passed) were used. The Ss Guttman scores (the non-parametric coded scores) were used in computing Spearman's rho ($rs$). Results are presented in Tables II and III.
TABLE II

RELATIONSHIPS AMONG SIX PHENOMENOLOGICAL DIMENSIONS OF ACCULTURATION AS DETERMINED BY PEARSON'S PRODUCT-MOMENT CORRELATION COEFFICIENT (r) (GENERATIONS 2 AND 3) USING UNCODED PSYCHOMETRIC SCORES

<table>
<thead>
<tr>
<th>Dimension</th>
<th>I</th>
<th>II</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>Generation 2 (N=47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Linguistics</td>
<td>1.0</td>
<td>.52**</td>
<td>.19</td>
<td>.19</td>
<td>.07</td>
<td>.70**</td>
<td></td>
</tr>
<tr>
<td>II. I Understand American</td>
<td>1.0</td>
<td>.45**</td>
<td>.33*</td>
<td>.29</td>
<td>.61**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. I am Comfortable with American</td>
<td>1.0</td>
<td>.19</td>
<td>.33*</td>
<td>.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. I am Satisfied with My Americans</td>
<td>1.0</td>
<td>.33*</td>
<td>.37**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII. Americans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
<td>.39**</td>
<td></td>
</tr>
<tr>
<td>IX. I am Comfortable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension</th>
<th>I</th>
<th>II</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>Generation 3 (N=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.0</td>
<td>.23</td>
<td>.29</td>
<td>.25</td>
<td>.67**</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>II</td>
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<td>.30</td>
<td>-.06</td>
<td>-.10</td>
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<td></td>
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<tr>
<td>VI</td>
<td>1.0</td>
<td>.27</td>
<td>.12</td>
<td>.55*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>1.0</td>
<td>.23</td>
<td>-.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII</td>
<td>1.0</td>
<td>-.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* sig. at .05 level of confidence
** sig. at .01 level of confidence

N = 47, d.f. = 45
r = .288
r = .372

N = 24, d.f. = 22
r = .404
r = .515
### TABLE III

**RELATIONSHIPS AMONG SIX PHENOMENOLOGICAL DIMENSIONS OF ACCULTURATION AS DETERMINED BY SPEARMAN'S RHO (rs) (GENERATIONS 2 AND 3) USING NON-PARAMETRIC, CODED GUTTMAN SCORES**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>I</th>
<th>II</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generation 2 (N=47)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Linguistics</td>
<td>1.0</td>
<td>.33*</td>
<td>.31*</td>
<td>.27</td>
<td>.51**</td>
<td>.31*</td>
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<tr>
<td>II. I Understand American</td>
<td>1.0</td>
<td>.16</td>
<td>.39*</td>
<td>.26</td>
<td>.53**</td>
<td></td>
</tr>
<tr>
<td>VI. I am Comfortable with American</td>
<td>1.0</td>
<td>.32*</td>
<td>.23</td>
<td>.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. I am Satisfied with My</td>
<td>1.0</td>
<td>.19</td>
<td>.65**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII. Americans</td>
<td>1.0</td>
<td>.35*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IX. I am Comfortable</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Generation 3 (N=24)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.</td>
<td>1.0</td>
<td>-.02</td>
<td>.19</td>
<td>.57**</td>
<td>-.08</td>
<td>.30</td>
</tr>
<tr>
<td>II.</td>
<td>1.0</td>
<td>.19</td>
<td>.20</td>
<td>.09</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>VI.</td>
<td>1.0</td>
<td>.15</td>
<td>.36*</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII.</td>
<td>1.0</td>
<td>-.003</td>
<td>.08</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>VIII.</td>
<td>1.0</td>
<td>-.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IX.</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*rs = sig. at .05 level of confidence = .306

**rs = sig. at .01 level of confidence = .432**
Because there were only four reliable scales in it, Generation 3 was dropped from further analysis. Generation 2 data supported the research hypothesis that the various phenomenological dimensions or sub-hierarchies of the construct, "acculturation," may be but are not necessarily directly related.

Kendall's coefficient of concordance: \( W \) was computed for six Generation 2 scales (I, II, VI, VII, VIII, and IX). \( W \) was found to be .67 which is equal to a \( \chi^2 \) value of 157.45 with five degrees of freedom. This is significant at .01 level of confidence where Chi-square is equivalent to 20.52. The research hypothesis that all scales or the given phenomenological dimensions are related to the construct, "acculturation," is supported.

Since all the scales of the given dimensions are related to the construct, "acculturation," and since some of the dimensions, but not all, are related to each other, the theoretical hypothesis is supported: acculturation is a factorially complex construct which can be defined as an amalgam of sub-hierarchies along various dimensions which may or may not be related to each other.

The relationships among the scales as determined by Pearson's \( r \) can then be diagrammed as in Figure 2. The relationships among the scales as determined by Spearman's rho is represented in Figure 3.
Discussion

Both research hypotheses and the theoretical hypotheses were supported. All the scales of given phenomenological dimensions of acculturation are related to one construct; yet, these scales do not need to be directly related to each other although they may be. Thus, acculturation is a factorially complex construct which can
be defined as an amalgam of sub-hierarchies along various dimensions which may or may not be related to each other.

The table of rho correlations is more important than the table of r correlations, for rho shows the relationships among ranked scores and not just raw data. From this set of data, it is readily seen that comfort with the actual use of American behaviors (Dimension IX) is the central dimension; it correlates with all other dimensions.

Dimension I. Linguistics is the next most central or important dimension—the only dimension it does not correlate with significantly is Dimension VII. I am Satisfied. Therefore, if a student is comfortable using the new behavioral patterns, then he will feel comfortable with the language, with Americans in inter-personal relationships, and with Americans in their own culture. He will feel as if he understands the culture fairly well and will be satisfied with his sojourn.

Conversely, a high scale-score on the inter-personal dimension, Dimension VIII. Americans was related only to linguistic ability and to personal comfort. How one perceives Americans (as difficult or easy to be with) does not appear to have too much relationship with other aspects of acculturation, such as feeling satisfied with the stay, or understanding the culture. This series of low correlations appears to be saying that inter-personal relationships are just that—inter-personal relationships which are formed in spite of cultural difference.
Dimension VII. I am Satisfied correlates with both comfort dimensions (VI and IX) and with understanding (II). It does not correlate with either Dimension I. Linguistics or Dimension VIII. Americans. Some of the items on the scale deal with more personal facts such as feelings of progress. Inter-personal relationships may not be influential in this area. However, some of the items do deal directly with relationships with Americans. They may be such a small part of the total, though, that they are insignificant.

Dimension VI. I am Comfortable with American correlates with the other comfort dimension (IX) which is active participation, with Linguistics (I) and satisfaction (VII). If one is comfortable observing, then one is more likely to participate. If one is satisfied with his sojourn and with his linguistic ability, one is, perhaps, also more apt to feel comfortable in the culture or vice versa.

The last dimension, Dimension II. I Understand American, correlates with Dimensions I, VII, and IX (linguistics, satisfaction, and participatory comfort). Linguistic ability is basic to comprehension of a new system. Then as one uses the new elements, one begins to understand them or vice versa. If one feels that he understands the new system he is in, then he feels comfortable in his relationships and feels as if he has made progress and so, feels satisfied with his stay.
The way these dimensions fall seems to indicate that the construct, "acculturation," is composed of branching sub-hierarchies. Nodes where the branches diverge are basic sub-sets. These sub-sets may filter all the way through each node which might also cause the appearance of quasi-rather than unidimensional scales. Further research to factor out specific and common factors and a further listing of all dimensions involved would help to clarify the hierarchical structure. Testing a scale comprised of one similar item from each of the various dimensions might also show if the dimensions themselves exist in a cumulative hierarchy, one level dependent on another, or if they exist in another configuration.
CHAPTER VII

RESULTS AND DISCUSSION: RELATIONSHIPS BETWEEN PERCEPTION AND OTHER VARIABLES

In this chapter, item ranks and scale scores are compared or correlated with other variables to determine the congruency of a person's self-perception with actual behavior and to determine what effect outside variables have on scale scores.

Hypotheses

Primary theoretical Hypothesis III:
A scaled self-report of perceived competency along a given phenomenological dimension of acculturation is related to actual behavior on that dimension as determined in previous studies and defined by other variables. The relationship may vary according to other variables and may or may not be linear.

Secondary theoretical hypotheses and operational hypotheses:

A. Perceived level of difficulty of the items parallels the actual order of difficulty of trait acquisition.
1. Item ranks will parallel Linton's order of trait acquisition.

B. Perception of ability may be congruent or incongruent with the actual level of ability as defined by the amount of contact with host nationals due to the process of differentiation/overgeneralization.

1. Scale scores will vary with time-in-country at the .05 level of significance ($X^2$-test for $k$ independent samples and Kruskal-Wallis One-Way Analysis of Variance by Ranks).

2. Scale scores will vary with the amount of time spent living with host nationals (significant at the .05 level of confidence, $X^2$ and Kruskal-Wallis).

C. Other variables affect the response pattern on scaled self-reports of perceived level of acculturation.

1. Scale scores will vary with national background (significant at the .05 level of confidence, $X^2$ and Kruskal-Wallis).

2. Scale scores will vary with the intention of permanent residency (significant at the .05 level of confidence, $X^2$ and Kruskal-Wallis).
3. Scale scores will correlate with perceived status and position (significant at the .05 level of confidence, Spearman's Rho).

4. Scale scores will correlate with perceived ability to communicate (significant at the .05 level of confidence, Spearman's Rho).

Results

Five different types of measures were used to determine the relationships between scale scores and demographic and other variables and as affected by other variables. A simple non-statistical comparison was made between item-ranks and Linton's order of trait acquisition. \( \chi^2 \)-tests for \( k \) independent samples and the Kruskal-Wallis one-way analysis of variance by ranks were computed to determine if different populations were indicated by various (1) times spent in the country, (2) amounts of time spent living with Americans, (3) nationalities, or (4) intentions of permanent residency in the United States. Spearman's rho \((rs)\) was computed to correlate scale scores with perceived status and perceived ability to communicate.

Perceived Level of Difficulty

Item-ranks from the most frequently passed to the least frequently passed were arranged and compared with Linton's educed order of trait acquisition from concrete
elements, to patterns of behavior, and lastly, abstraction. As can be seen in Appendix D, students generally perceived that concrete elements were the easiest to understand, to feel comfortable with, or to use, etc. Patterns of behavior and abstractions were successively more difficult. There were a few exceptions to this, e.g., it was easier to understand the way a friend behaved than it was to understand the way Americans in general behaved.

There was one dimension, VII. I am Satisfied, in which item-ranks were not as expected. Students were more easily satisfied with their general progress and social life than they were with their linguistic ability. Morris (Chapter 4) had found the opposite pattern—that students were not satisfied unless they were competent in English. The results of the rankings might have fallen this way for Generation 2 for two reasons: (1) quality of contact with Americans (which ranked lower than linguistic ability) was differentiated from general social life and quality of contact with co-nationals, and (2) this was a measure of perception, not actual competency; even students who have been in the United States for over three years and who are fluent in the language can be and are dissatisfied with their abilities.

On Dimension VIII. Americans, the most difficult items by rank for Generation 2 were "Americans understand other people" and "Americans know how others feel." The low
rank of this item shows the difficulty that exists in truly coming to feel comfortable with a person of another culture. Even if an American is perceived as a good listener and easy to get along with, that does not necessarily mean that these are valued traits in the student's home culture. For example, listening to someone, paying close attention to them in the norm of the United States culture entails looking someone in the eyes. A Thai woman who is being looked in the eyes though, may not perceive this as a compliment and may feel that Americans do not understand other people.

This supports the research hypothesis that item-ranks will parallel Linton's order of trait acquisition. This also supports the secondary theoretical hypothesis that the perceived level of difficulty of the items does actually reflect the true level of acquisition difficulty.

Overgeneralization/Differentiation

To determine in what manner the processes of overgeneralization/differentiation were occurring, both the $X^2$-test for $k$ independent samples and the Kruskal-Wallis one-way analysis of variance by ranks were computed for two different variables: time-in-country and the percentage of time spent living with Americans. Results for both tests are summarized in Table IV.
TABLE IV

INDEPENDENCY OF SAMPLE POPULATIONS ACCORDING TO THE
INDEPENDENT VARIABLES OF TIME-IN-COUNTRY AND
PERCENTAGE OF TIME LIVING WITH AMERICANS
AS DETERMINED BY KRUSKAL-WALLIS
(H) AND \( X^2 \)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Independent Variable</th>
<th>Time-in-country(^a)</th>
<th>% of Time Living with Americans(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( H )</td>
<td>( X^2 )</td>
</tr>
<tr>
<td>I. Linguistics</td>
<td></td>
<td>10.191*</td>
<td>ns</td>
</tr>
<tr>
<td>II. I Understand American</td>
<td></td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>VI. I am Comfortable with American</td>
<td></td>
<td>9.036*</td>
<td>ns</td>
</tr>
<tr>
<td>VII. I am Satisfied with My Americans</td>
<td></td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>VIII. Americans</td>
<td></td>
<td>11.376**</td>
<td>ns</td>
</tr>
<tr>
<td>IX. I am Comfortable</td>
<td></td>
<td>ns</td>
<td>ns</td>
</tr>
</tbody>
</table>

* sig. at .05 level of confidence (Chi-square = 7.82, d.f. 3).
** sig. at .01 level of confidence (Chi-square = 11.34, d.f. 3).

\(^a\)Populations for the independent variable "time-in-country" were classified: 1 (0-5 mos. n=13), 2 (6-12 mos. n=10), 3 (13-29 mos. n=10), 4 (30-216 mos. n=12).

\(^b\)Populations for the independent variable "% of time spent living with Americans" were classified: L-L (<30 mos. in U.S., <75% of time spent living with Americans), L-H (<30 mos. ≥75% with Americans, n=7), H-L (≥30 mos. <50% with Americans, n=6), H-H (≥30 mos. ≥50% with Americans, n=6); d.f. for both independent variables = 3; (n L-L =26).
None of the $X^2$ tests were significant. $H$ for the independent variable, "time-in-country," was significant at .05 for Dimensions I and VI, and at .01 for Dimension VIII. $H$ for the independent variable, "percentage of time spent living with Americans," was significant at .05 for Dimensions I, VIII, and IX, and at .01 for Dimension VI.

The results of the $X^2$-test are not as important as the results of the Kruskal-Wallis test for determining whether or not different populations were indicated by the different variables: the $X^2$-test collapsed the data in such a way that significant differences were shown not to exist (a "type 2" error). However, when the $X^2$ scores are graphed as in Figures 4 and 5 they do give a visual representation of the gross differences between response groups which is not possible with the Kruskal-Wallis.
I. Linguistics

\[ X^2\text{-test median of 6.8; 8 total} \]

II. I Understand American

\[ X^2\text{-test median of 10.17; 11 total} \]

VI. I am Comfortable with American

\[ X^2\text{-test median of 6.79; 8 total} \]
Figure 4. \(X^2\)-tests for \(k\) independent samples--percentage scoring above the median along six dimensions for the independent variable "time-in-country."
I. Linguistics

\[ X^2 \text{-test median of } 6.8; 8 \text{ total} \]

II. I Understand American

\[ X^2 \text{-test median of } 10.17; 11 \text{ total} \]

VI. I am Comfortable with American

\[ X^2 \text{-test median of } 6.79; 8 \text{ total} \]
VII. I am Satisfied with My

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Percentage Below Median</th>
<th>Percentage Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-L</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>L-H</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>H-L</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>H-H</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

$X^2$-test median of 11.88; 13 total

VIII. Americans

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Percentage Below Median</th>
<th>Percentage Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-L</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>L-H</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>H-L</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>H-H</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

$X^2$-test median of 7.50; 13 total

IX. I am Comfortable

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Percentage Below Median</th>
<th>Percentage Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-L</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>L-H</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>H-L</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>H-H</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

$X^2$-test median of 6.53; 8 total

L-L = <30 mo. in U.S. <75% living w/Amer.
L-H = <30 mo. in U.S. ≥75% living w/Amer.
H-L = ≥30 mo. in U.S. <50% living w/Amer.
H-H = ≥30 mo. in U.S. ≥50% living w/Amer.

Figure 5. $X^2$-tests for k independent samples--percentage scoring above the median along six dimensions for the independent variable "percentage of time spent living with Americans."
Dimension I. Linguistics

H was significant for both variables on this dimension (.05); \( \chi^2 \) was not significant for either. The percentage of people attaining high scale scores rose linearly with time-in-country until the thirtieth month when there was a drop from 70% to 58% scoring above the median scores. Those who spent a greater amount of time living with Americans scored higher on linguistics than those who spent less time living with Americans. This drop in the percentage of people scoring above the median after 30 months might be attributed to two factors: (1) a recognition that one has more to learn than previously thought since language is complex and subtle and that what might have appeared as a simple substitution process is actually multi-faceted hiding different value orientations and behaviors, and (2) a recognition of the rhetorical structure of the language and its complexity beyond the grammatical structure.

Dimension II. I Understand American

Although the Kruskal-Wallis and the \( \chi^2 \) were not significant for both variables on this dimension, there appeared to be a trend for "understanding" to correlate linearly with time-in-country. There was little, if any, difference between people who spent much time living with Americans and those who didn't; about 50% of all the populations scored above the median. Amount of contact appears
to play very little role in determining how much one thinks one understands a new host culture.

**Dimension VI. I am Comfortable with Americans**

$X^2$ was not significant for this dimension; Kruskal-Wallis was significant at .05 (time-in-country) and .01 (percentage of time spent living with Americans). Time-in-country formed a J-curve of 53% above the median (0-5 months) followed with the low points of 30% above the median (5-29 months). At 30+ months it rose to a high of 76% above the median. This would appear to correspond to the honeymoon period, when one is perhaps being treated like a guest and in which problems do not seem overwhelming, followed by the time of culture shock when the customs become unnerving and one realizes that he is unable to communicate. This is followed once again by an integration of the traits and a true acceptance of and ease in the host culture.

For those who had been in the United States for less than 30 months, there was a slight rise from 38%-43% above the median for those who spent more than 75% of their time living with Americans. All students who had been in the United States for 30 or more months and who had spent at least 50% of their time living with Americans scaled as being very comfortable with Americans in their own milieu.

The amount of contact and the period of time that one is in does determine how comfortable one feels in the host culture.
Dimension VII. I am Satisfied with My

Neither the Kruskal-Wallis nor the $X^2$ were significant on this dimension for either variable. However, it appears that there is a trend to a higher degree of satisfaction if one spends more time living with the host nationals.

Dimension VIII. Americans

$H$ was significant at .01 (time-in-country) and .05 (percentage of time spent living with Americans) for this dimension; $X^2$ was not significant for either variable. The correlation between time-in-country and the percent scoring above the median revealed a $\Uparrow\underbrace{\curvearrowright}$-curve. Of the students who had been in the United States 5-12 months, 80% scored above the median while only about 40% of all other time blocks scored above the median. This might indicate a type of positive stereotyping which was preceded by uncertain evaluations and followed by more realistic evaluations.

The more time one spent living with Americans, the higher one scored. These high scale scores by those who had lived with Americans might indicate a type of halo-effect as positive reactions to friends and host families are transferred to all Americans.

Dimension IX. I am Comfortable

Only $H$ for the variable, "percentage of time spent living with Americans," was significant (.05). Neither $H$ nor $X^2$ was significant for the variable, "time-in-country."
The $X^2$ graph for the variable, "percentage of time spent living with Americans," indicates that students who have been in the United States for 30+ months but who have spent less than 50% of their time living with Americans feel the least comfortable using American clothing, customs, thought patterns, etc. This is perhaps so because those who have spent over 30 months and over 50% of their time living with Americans are probably starting to integrate and so, feel comfortable. Those who have been here less than 30 months may think that they are using American thought patterns, etc. and say that they feel comfortable using such when, in actuality, they are still on the surface level. Those who have been here and who have not spent much time living with Americans are perhaps feeling the enormity of the differences which separate the cultures.

When one is looking at time-in-country, there appears to be a trend to a J-curve for the percentage scoring above the median. The low point again comes at 5-12 months which seems to indicate the onset of culture shock.

Profile

From the above information, it is fairly simple to graph a profile of the student at various times in the country as seen in Figure 6.
Students who have been in the U.S. 0-5 months

Students who have been in the U.S. 6-12 months
Students who have been in the U.S. 13-29 months

<table>
<thead>
<tr>
<th>Dimens.</th>
<th>I</th>
<th>II</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
</tr>
</thead>
<tbody>
<tr>
<td>% scoring above median</td>
<td>75</td>
<td>50</td>
<td>25</td>
<td>50</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

Students who have been in the U.S. 30-216 months

<table>
<thead>
<tr>
<th>Dimens.</th>
<th>I</th>
<th>II</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
</tr>
</thead>
<tbody>
<tr>
<td>% scoring above median</td>
<td>50</td>
<td>50</td>
<td>75</td>
<td>50</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

Figure 6. $\chi^2$-tests for $k$ independent samples—percentage scoring above the median along six dimensions for the independent variable "time-in-country": profiles of each time group.
In addition, when one looks at how a student perceives his rate of progress (demographic question 29, Appendix B), one sees a sliding scale of perception similar to an \( \cap \)-curve. At mean of 15.08 months, students feel that they are making "good progress." At mean of 24.80 months, students feel they are making "some progress." At mean of 50.85 months, students feel they are finally making "excellent progress." The results are presented in Table V.

**TABLE V**

**STUDENT'S PERCEPTION OF PROGRESS**

<table>
<thead>
<tr>
<th></th>
<th>Very Little Progress</th>
<th>Some Progress</th>
<th>Good Progress</th>
<th>Excellent Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n</strong></td>
<td>1</td>
<td>15</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td><strong>% of Total N</strong></td>
<td>2%</td>
<td>31%</td>
<td>53%</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Median Months</strong></td>
<td>1</td>
<td>12.5</td>
<td>10</td>
<td>24.5</td>
</tr>
<tr>
<td><strong>in U.S.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mean Months</strong></td>
<td>1</td>
<td>24.80</td>
<td>15.08</td>
<td>50.85</td>
</tr>
<tr>
<td><strong>in U.S.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>0</td>
<td>36.61</td>
<td>13.13</td>
<td>74.18</td>
</tr>
<tr>
<td><strong>Deviation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Range of</strong></td>
<td>1</td>
<td>2-144</td>
<td>2-43</td>
<td>5-216</td>
</tr>
<tr>
<td><strong>Months</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary**

The research hypotheses that scale scores may vary with the length of time in the country and with the percentage of time one spends living with the host nationals
were supported. Thus, the relevant secondary theoretical hypothesis was supported: perception of ability may be congruent or incongruent with the actual level of ability as defined by the amount of contact with host nationals due to the process of differentiation/overgeneralization.

Perception of difficulty may be accurate, but one's perception of one's own level of proficiency is not necessarily accurate.

Effects of Other Variables on Scale Scores

Three different statistics were used to determine if other variables affected scale scores and their distribution. The $X^2$-test for $k$ independent samples and the Kruskal-Wallis one-way analysis of variance by ranks were used to determine if students from different origins and of differing intentions of permanent residency comprised different populations. Spearman's rho ($r_s$) was used to determine the amount of correlation between scale scores and perceived status and perceived ability to communicate.

Effects of National Origin and Intention to Reside Permanently

The results of the $X^2$-test for $k$ independent samples and the Kruskal-Wallis for the independent variables, "national origin," and "intention of permanent residency," are presented in Table VI.
<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>National Origin&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Intention of Permanent Residency&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>H</td>
<td>X&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>I. Linguistics</td>
<td>8.778&lt;sup&gt;*&lt;/sup&gt; ns</td>
<td>6.931&lt;sup&gt;*&lt;/sup&gt; ns</td>
</tr>
<tr>
<td>II. I Understand American</td>
<td>17.878&lt;sup&gt;***&lt;/sup&gt; ns</td>
<td>6.674&lt;sup&gt;*&lt;/sup&gt; ns</td>
</tr>
<tr>
<td>VI. I am Comfortable with American</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>VII. I am Satisfied with My</td>
<td>13.303&lt;sup&gt;<strong>&lt;/sup&gt; 11.56</strong></td>
<td>ns</td>
</tr>
<tr>
<td>VIII. Americans</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>IX. I am Comfortable</td>
<td>11.338&lt;sup&gt;*&lt;/sup&gt; ns</td>
<td>8.273&lt;sup&gt;*&lt;/sup&gt; ns</td>
</tr>
</tbody>
</table>

<sup>*</sup> sig. at .05 level of confidence (Chi-square = 7.82, d.f. 3, 5.99, d.f. 2).

<sup>**</sup> sig. at .01 level of confidence (Chi-square = 11.34, d.f. 3, 9.21, d.f. 2).

<sup>***</sup> sig. at .001 level of confidence (Chi-square = 16.27, d.f. 3, 13.82, d.f. 2).

<sup>a</sup> Populations defined as Japanese (n=12), Asian (n=13), Middle-East (n=11), and Other: Europe (n=2), Africa (n=2), South America (n=5); d.f. = 3.

<sup>b</sup> Populations defined as no intention of permanent residency (n=26), uncertain or possible intention of permanent residency (n=9), and definite intention of permanent residency (n=10); d.f. = 2.
For the independent variable, "national origin," $X^2$ was significant at .01 on Dimension VII. I am Satisfied.

For the independent variable, "intention of permanent residency," $X^2$ was significant at .05 for Dimension VI. I am Comfortable and Dimension VIII. Americans.

For "national origin," $H$ was significant at .05 on Dimension I. Linguistics; .001, Dimension II. I Understand American; .01, Dimension VII. I am Satisfied; and .05, Dimension IX. I am Comfortable. For "intention of permanent residency," $H$ was significant at .05 for Dimension I. Linguistics, Dimension II. I Understand American, Dimension VIII. Americans, and Dimension IX. I am Comfortable.

National Origin

The graphs of the percentage scoring above the median in the $X^2$ tests (independent variable, "national origin") presented in Figure 7 help clarify some of the effects that national origin has on the distribution of scale scores.
I. Linguistic

<table>
<thead>
<tr>
<th>Region</th>
<th>% Scoring Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>25</td>
</tr>
<tr>
<td>Asia</td>
<td>25</td>
</tr>
<tr>
<td>Mid-East</td>
<td>75</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
</tr>
</tbody>
</table>

$X^2$-test median of 6.8; 8 total

II. I Understand American

<table>
<thead>
<tr>
<th>Region</th>
<th>% Scoring Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>50</td>
</tr>
<tr>
<td>Asia</td>
<td>75</td>
</tr>
<tr>
<td>Mid-East</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
</tr>
</tbody>
</table>

$X^2$-test median of 9.0; 11 total

VI. I am Comfortable with American

<table>
<thead>
<tr>
<th>Region</th>
<th>% Scoring Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>50</td>
</tr>
<tr>
<td>Asia</td>
<td>25</td>
</tr>
<tr>
<td>Mid-East</td>
<td>75</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
</tr>
</tbody>
</table>

$X^2$-test median of 6.5; 8 total
Figure 2. $X^2$-tests for $k$ independent samples—percentage scoring above the median for the independent variable "national origin."
**Dimension I. Linguistics.** H is significant although \( X^2 \) is not. The graph indicates that Asians are likely to have fewer scores above the median than Mid-Easterners or Others. The interpretation is clear: the Other grouping consists of those whose language comes from the same Indo-European base as English or who have been raised in British-speaking schools. Although the Mid-Eastern languages are slightly more removed from English than the Romance or Germanic languages, they are still more similar than the Oriental languages. In addition, instructors of English as a Second Language have noted that Middle-Eastern students are quite fluent in verbal English while Asian students are more hesitant verbally.\(^1\) In addition, many Iranian students scored high on this scale due to the transfer of the teasing repartee from Persian to English interactions. This cultural response pattern also helped to pull the Mid-Easterners above the median. These factors would contribute to differences in the ease of the new language.

**Dimension II. I Understand American.** H was significant at .001; \( X^2 \) was not significant. Mid-Easterners scored fewer above the median than any of the other three groups.

**Dimension VI. I am Comfortable with American.** Neither H nor \( X^2 \) was significant. It appears as a trend, though, that Asians as a whole are less comfortable with Americans in their own milieu than those of other national origins.
Dimension VII. I am Satisfied with My. Both $X^2$ and $H$ were found significant at .01. Only 18% of the Japanese scored above the median. Out of the other groups, 41% of the Asians, 66% of the Other, and 72% of the Mid-Easterners scored high. It seems as if the Japanese may be placing higher demands on the environment and on themselves. It is uncertain what the major influence is here, but perhaps the change from a very tightly structured community to a more loosely structured community is a factor.²

Dimension VIII. Americans. Nationality did not seem to play an important role in determining an individual's response to Americans personally: neither $H$ nor $X^2$ was significant. Mid-Easterners tended to score somewhat higher.

Dimension IX. I am Comfortable. $X^2$ was not significant, but $H$ was significant at .05. Asians feel less comfortable than the other groups in actually using American dress, linguistic, and philosophic patterns, etc. This could be because of the wide and readily noticed disparity between Asian and Western culture, a gap that is perhaps not quite as jarring between the other cultures and the United States.

Intention of Permanent Residency

The graphs of the percentage scoring above the median in the $X^2$-tests for this independent variable, "intention of permanent residency," shown in Figure 8, helps to present the effect of this variable on different populations.
I. Linguistics

\[ \chi^2 \text{-test median of 6.6; 8 total} \]

II. I Understand American

\[ \chi^2 \text{-test median of 10.5; 11 total} \]

VI. I am Comfortable with American

\[ \chi^2 \text{-test median of 6.5; 8 total} \]
Figure 8. $X^2$-tests for $k$ independent samples--percentage scoring above the median for the independent variable "intention of permanent residency in the United States."
Dimension I. Linguistics. H was significant (.05) indicating that those who did not intend to stay, those who were uncertain, and those who definitely did intend to stay formed different populations. The graph of the percentage scoring above the median shows that of those with no intention of staying only 42% scored above the median as opposed to 67% and 60% of those with probable or definite intention.

Dimension II. I Understand American. H was significant at .05, $X^2$ was not significant. A linear progression is indicated. The more definite one's intention of staying, the more likely one is to score higher. A reference-group theory might hold the explanation for what is happening here.

Dimension VI. I am Comfortable with American. H was not significant, $X^2$ was significant at .05. Of those with a probable intention of staying, 89% scored above the median as opposed to 35% and 60% of those with no intention and those with a definite intention, respectively.

Dimension VII. I am Satisfied with My. Neither H nor $X^2$ was significant. However, there is a trend for those with a definite intention of staying to score higher.

Dimension VIII. Americans. H was significant at .001, $X^2$ was significant at .05. Of those with no intention of staying only 30% scored above the median while 67% and 71% of those with probable and definite intention scored high. As with Dimensions II, VI, and IX (understanding,
observatory, and participatory comfort) the question is raised: do people intend to stay because they understand and like the new host culture, or do they understand and like the new host culture because they intend to stay or must stay, as in the case of refugees?

**Dimension IX. I am Comfortable.** $H$ was significant at .05, $X^2$ was not significant. Of those with no intention of permanent residency only 35% scored above the median while of those with probable or definite intention of staying, 67% and 70% scored above the median.

National Status and Perceived Ability to Communicate

**Student's perception of their status level.** Perception of status level in the United States as compared to their home country (demographic data, question 28, Appendix B) fell into a bell-shaped curve with the majority perceiving their status here to be the same as their status in their home country. Perception of national status correlated with only one set of scale scores, Dimension IX. I am Comfortable: a person who felt that his status here was higher than at home would score quite high. Results are summarized in Table VII.

**Perception of ability to communicate.** This was a skewed distribution with more students feeling that they were above average, (demographic data, question 27, Appendix B). There were no significant correlations. Results are shown in Table VIII.
TABLE VII
CORRELATIONS BETWEEN STUDENTS' PERCEIVED STATUS LEVEL AND SCALE SCORES

Perceived Status Level in U.S. in Comparison with Perceived Status in Home Country

<table>
<thead>
<tr>
<th>Response Category</th>
<th>n</th>
<th>% of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) much worse</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>b) worse</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>c) the same</td>
<td>28</td>
<td>59</td>
</tr>
<tr>
<td>d) better</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>e) much better</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

Correlation with Scale Score

<table>
<thead>
<tr>
<th>Dimension</th>
<th>rho</th>
<th>t(d.f. 2)</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Linguistics</td>
<td>.11</td>
<td>.78</td>
<td>ns</td>
</tr>
<tr>
<td>II. I Understand American</td>
<td>.25</td>
<td>1.93</td>
<td>ns</td>
</tr>
<tr>
<td>VI. I am Comfortable with American</td>
<td>.23</td>
<td>1.75</td>
<td>ns</td>
</tr>
<tr>
<td>VII. Americans</td>
<td>.19</td>
<td>1.41</td>
<td>ns</td>
</tr>
<tr>
<td>IX. I am Comfortable</td>
<td>.44</td>
<td>5.00</td>
<td>.05 (t=2.920)</td>
</tr>
</tbody>
</table>
### TABLE VIII

**CORRELATIONS BETWEEN STUDENTS' PERCEIVED ABILITY TO COMMUNICATE AND SCALE SCORES**

<table>
<thead>
<tr>
<th>Response Category</th>
<th>n</th>
<th>% of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) much poorer</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>b) poorer</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>c) about average</td>
<td>19</td>
<td>40</td>
</tr>
<tr>
<td>d) better</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>e) much better</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>f) among the best</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Correlation with Scale Score**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>rho</th>
<th>t(d.f. 2)</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Linguistics</td>
<td>.02</td>
<td>.13</td>
<td>ns</td>
</tr>
<tr>
<td>II. I Understand American</td>
<td>.15</td>
<td>.10</td>
<td>ns</td>
</tr>
<tr>
<td>VI. I am Comfortable with American</td>
<td>.07</td>
<td>.48</td>
<td>ns</td>
</tr>
<tr>
<td>VII. I am Satisfied with My</td>
<td>.28</td>
<td>2.21</td>
<td>ns</td>
</tr>
<tr>
<td>VIII. Americans</td>
<td>.10</td>
<td>.70</td>
<td>ns</td>
</tr>
<tr>
<td>IX. I am Comfortable</td>
<td>.31</td>
<td>2.50</td>
<td>ns</td>
</tr>
</tbody>
</table>
Summary

The research hypotheses that scale scores will correlate with perceived ability to communicate and perceived status level were not supported except in one instance. The research hypotheses that scale scores will vary with nationality and with the intention of permanent residency were supported.

The secondary theoretical hypothesis that outside variables affect the response pattern was supported.

Discussion

Even though two research hypotheses were not supported, the three secondary theoretical hypotheses were. These hypotheses were: A. The perceived level of difficulty of acquisition will parallel the actual level of acquisition difficulty; B. A process of differentiation/overgeneralization is occurring so that perceived level of competency may or may not be congruent with the actual amount of time spent with Americans; C. Outside variables will affect the response patterns.

The primary theoretical hypothesis was thus supported: a scaled self-report of the degree of perceived competency reached on a scale of a given phenomenological dimension is related to behavior on that dimension as determined in previous studies and defined by other variables. The relationship may vary according to other variables and may or may not be linear.
In these next sections, the methodology will be critiqued and the meaning of the results will be explored.

Methodology

There are two major areas to critique here: the testing instrument itself and the statistical methods used.

As mentioned in Chapter 5, the scales were written for self-anchoring responses. In some instances, this led to non-monotonic or ambiguous response patterns in which students who had been in the host culture a short time and students who had been in the host culture for several years were responding in the same way. This was disadvantageous in that the true subtleties which would distinguish new- and old-timers were not found.

Conversely, the non-monotonic response pattern was advantageous in that it did clarify and validate some aspects of the process of differentiation/overgeneralization for second-culture learning. It was discovered that for some dimensions a person would think that he comprehended when he first arrived. However, after 5 months his feeling of mastery would diminish. It would only be after a year or two-and-a-half years that his feeling of comprehension would reassert itself, this time with much firmer grounding.

This seems to indicate that there is a time of gross differentiation between own-culture and host culture. Because one recognizes that there are differences (a dog is not a cat), one feels as if one understands what is
happening (it makes no difference whether the cat is a tiger or a house cat). As one begins to make finer distinctions, one realizes that a set response pattern is inadequate. One feels lost, culture shock is setting in. After a period of relearning and of integrating, one is again confident and does not hesitate to say that he understands.

Of the statistics used to interpret the Guttman scores, the Kruskal-Wallis one-way analysis of variance by ranks was the most efficient, preserving the magnitude of the ranks. The $X^2$-test collapsed response rankings so that viable differences were not noted (a type-2 error). The $X^2$ was useful, though, in that it was easily graphed and thus, helped to interpret the results of the Kruskal-Wallis.

Simple correlations revealed very little about the relationship between perceived status and communicative ability to scale scores other than that no relationship existed. It may be that there is no relationship, but some other patterns might have been revealed by use of the Kruskal-Wallis.

One difficulty with non-parametric statistics is that it is not easy to factor out specific influences. Thus, when one is looking at the charts it must be remembered that nationality is contaminating time-in-country, as is the intention of permanent residency, and so forth. As these are graphed some of the relationships among component parts can be revealed, but the simplicity and elegance of the parametric statistics are still missing.
Results

Going through the dimensions briefly, the influential factors are easily found for each dependent variable.

A longer time-in-country, more time spent living with the hosts, and non-Oriental backgrounds all influence high response scores on Dimension I. Linguistics.

Nationality and an intention to reside permanently in the United States are positive influences toward a high scale score for Dimension II. I Understand American. Amount of contact played no significant role.

However, amount of contact with Americans (both in length of residency and percentage of time spent living with Americans) was important in Dimension VI. I am Comfortable. A J-curve was apparent for the correlation of time-in-country with high scale scores. $X^2$ was significant for the intention of permanent residency—those with a possible intention of staying in the United States had a higher percentage of above median scores than did the others. $X^2$ was not significant for national origin. $H$ was not significant for either of these latter two populations.

Only nationality played a significant role in the response pattern to Dimension VII. I am Satisfied with My. Mid-Easterners and Others were more satisfied than Japanese and other Asians.

Nationality, however, was the only factor that was not significantly influential for Dimension VIII. Americans.
Those with a definite intention of residing in the United States, those who spent a majority of their time living with Americans, and those who had been here 5-12 months were the ones who rated Americans high on inter-personal skills. Some of this might have been due to positive stereotypic attitudes and/or to the halo-effect.

Time-in-country had no significant effect on a person's ability to feel comfortable using new American traits. Those who had been in the host country 30 months or more and who had spent less than 50% of their time living with Americans were definitely less comfortable. Asians and those with no intention of residing permanently in the United States were also less comfortable. One's perceived status correlates with one's scale score on this dimension.

Basically, the length of stay, the amount of contact with host nationals, national origins, and the intention of permanent residency were all influential. Perceived status and perceived ability to communicate were not related to scale scores.

A person's perception of the degree of difficulty in acquiring a trait is generally accurate (secondary theoretical hypothesis A). Yet even though a person's perception and skill is growing in a step-by-step process through the process of differentiation/overgeneralization, his perception of his ability is not necessarily congruent with his behavior (secondary theoretical hypothesis B). For example, the
J-curve for Dimension VI. I am Comfortable with American demonstrates an incongruency while the basically linear /-curve for Dimension I. Linguistics illustrates a closer congruency between perception of ability and behavior.

Other variables such as national origin and the intention of permanent residency can also affect the perceived level of ease of acculturation (secondary theoretical hypothesis C).

Even though different types of curves are apparent, it is evident that they are dependent on both the independent and the dependent variable which are being measured. Specificity is required when describing not only patterns of adjustment but also patterns in the acquisition of new behaviors.
Chapter 7--Notes

1 Interview with Kris Kern, Instructor, English as a Second Language Program, Portland State University, April 1976.

2 Interview with Noriko Huruse, Portland State University, November 1976.
CHAPTER VIII

CONCLUSION

Even though this paper did not explore "the chronology of the transculturation process" per se, it did explore and uncover some of the characteristics of the nature of the cognitive processes and perceptions underlying acculturation over time thus arriving at a chronology of the phenomenology of the acculturative process. This occurred through three major approaches:

1. By an attempt to verify the existence of hierarchies along various posited phenomenological dimensions of acculturation.

2. By determining if each of these nine hierarches was a sub-hierarchy of the factorially complex construct, "acculturation."

3. By determining the congruencies between one's self-perception of how acculturated one is with other known facts about the acculturation process.

In exploring these three major approaches, the three primary and three secondary hypotheses were all supported by the data. Hence, acculturation is a factorially complex construct comprised of an amalgam of sub-hierarchies. These sub-hierarchies are scalable phenomenological dimensions of perceived competency.
Responses to scaled self-reports along these phenomenological dimensions are related to actual behavior. This relationship is affected by other variables and is not necessarily linear. The perceived level of item difficulty parallels the actual level of difficulty in trait acquisition. But, this does not necessarily mean that a person perceives himself in the correct perspective—because of the continuing expansion and growth in perception, perceived level of competency is not necessarily congruent with actual behavior even though it can be. Scale responses are also affected by other variables such as national origin and the intention to reside permanently. Variables such as the perceived ability to communicate and perceived status level did not have any direct correlation with scale scores.

Even though these relationships were discovered only indirectly, it is expected that third party observations of the behavior should confirm these two facts: (1) that perception of the difficulty of trait acquisition does actually parallel the actual observed order and difficulty of trait acquisition, and (2) that perception of one's level of achievement is sometimes linearly and sometimes curvilinearly related to one's actual level of achievement.

Several relationships found in this study were of special note. Comfort with Dimension I. Linguistics was associated with a non-Asian background and with more contact with Americans. Amount of contact, however, was not
significantly related to Dimension II. I Understand American. Nationality and the intention of permanent residency were the salient variables here. A J-curve for time-in-country was associated with Dimension VI. I am Comfortable with American (i.e., comfort with the observation of American traits); yet no relationship was found between length of stay and Dimension IX. I am Comfortable (i.e., comfort with the actual use of traits). Nationality was the only independent variable that was significant for VII. I am Satisfied--Asians were less satisfied. But nationality did not play any role in inter-personal stereotypic responses to Dimension VIII. Americans. Those who intended to reside permanently in the United States, those who had been in the United States 5-12 months, and those who spent most of their time living with Americans were those who gave Americans the highest inter-personal rating.

Among the scales themselves as determined by rho correlations, Dimension IX. I am Comfortable was the central dimension to which all other dimensions related. I. Linguistics was the next most central. Dimension VIII. Americans was peripheral indicating that inter-personal satisfaction occurred perhaps in spite of cross-cultural differences.

Of final note is the fact that quasi-scales were found in not only one but in three generations of testing. This firmly establishes that hierarchical relationships
exist along six dimensions. Since the scalability of these dimensions is established, this same rank ordering will hold true across different populations for the same universe. Different items, however, may be necessary in order to establish viable, unambiguous scales in which the examiner and the subject have the same response criterion.

Out of this study though have risen some areas which need further clarification and exploration.

1. More research needs to be done on the variables which affect the ease of acquisition of second-culture traits. Especially more research needs to be done on the role and influence of language skills both as a bridge and as a model for second-culture acquisition.

2. More research can be done on the inter-relationships among variables: the effect of linguistic ability on comfort and on inter-personal relationships; the effect of inter-personal relationships on understanding.

3. The construct, "acculturation," was given an operational definition, i.e., competency along given phenomenological dimensions. However, this construct should be further explored so that what is central and what is peripheral to the construct is made known. In addition, the universal, general, and specific factors for each level of hierarchy and sub-hierarchy and for each sub-set could be clarified. One way of determining hierarchical levels might be by forming a scale comprised of one similar item from
each of the extant dimensions. Other ways might include factor analysis and serendipity.

4. The dimensions could be redefined and/or the scales refined so that unidimensional scales rather than quasi-scales would be indicated. Factor analysis, again, or the H-technique are two possible ways of reaching this.

Finally, the meaning of the quasi-scales themselves needs to be determined. Further testing on Generation 3 might have helped. Use of the Israel Alpha technique would definitely have provided further insight into the nature of the scales and of the construct, "acculturation." Sub-sets within the dimensions or the meaning of the sub-sets within the dimensions might be clarified by this technique. If the scales were rewritten with firmer response criteria and with simpler language, more of a tendency towards homogeneity might also be indicated. This remains to be seen.

However, this investigation has explored some new facets of the construct, "acculturation," and has also explored, if not the acquisition of new communicative behaviors, at least a person's perception of his acquisition of new behaviors over time and as affected by other variables.

Even though the order and rate of actual acquisition of behaviors is not defined by this study, even knowledge of a student's perception of his ability and the culture surrounding him can be beneficial. For instance, if
instructors or counselors know that, generally, between 5-12 months a foreign student will not feel very comfortable in the host culture preparatory measures can be taken to guide the student through the times of dis-ease.

Finally, if the quasi-scales were further refined so that their parameters were known or so that they were homogenous scales, one might, later, be able to use them as a diagnostic instrument. For example, deviant patterns on some dimensions might indicate that a person was becoming marginal rather than integrating himself into a social group.

With the increase in contact between cultures and in foreign student exchange it might be profitable to further investigate these areas.
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APPENDIX A

INSTRUCTIONS TO STUDENTS FOR GENERATIONS 1 AND 3,
DEMOGRAPHIC DATA, SCALES FOR GENERATION 1
INSTRUCTIONS TO STUDENTS FOR
GENERATIONS 1 AND 3

The proctor for the test was introduced to the class by the instructor. The proctor explained to the classroom that this was research being conducted by a graduate student in the department of Speech Communication as a requirement for a master's thesis.

The purpose of the test was introduced as an attempt to better understand how students felt in the United States: if American instructors and counselors could understand better how the international students felt then perhaps better programs could be designed to meet their requirements. It was emphasized that there were no right answers, that there were no wrong answers— that everyone went through times when they were more or less comfortable than at other times.

Students were given a brief chance to ask questions and then were told that if they had any questions about the test they could raise their hand and ask for help during the testing.

Instructions were then read off the test packet (see To the Respondent).

Students for Generation 1 were told that they would have 10 minutes to complete Part I. When time was called, they were allowed approximately 30 minutes to complete the scales. Students for Generation 3 were told that they had the rest of the class period to work (30–40 minutes).

Any further questions about the test and any further comments were handled on an individual basis after the class.
To the Respondent:

This survey is being conducted in partial fulfillment of the requirements for a master's thesis. Your help in rapidly and accurately responding to the statements would be greatly appreciated.

This survey is in two parts. The first part is background data on yourself. The second part is a survey of your feelings about life in America.

In the first part only, please circle the correct response(s) and/or fill in the blank with an appropriate answer. Please stop writing after you finish the first two pages and wait for a further signal to continue.

In the second part, starting with the page titled LINGUISTIC, underline either yes or no whichever is closest to what you feel or know now, today. Do not leave any statements unanswered. After you finish each page go back and check for any blanks and underline the proper response; then go immediately to the next page. It is very important that you work both accurately and quickly. Therefore you will be given about 30 minutes to complete the whole survey.

In this survey there are no right answers, there are no wrong answers. All that is important is your true response to the statement, as you are feeling now.

Example:

yes no 1. I like American food.
yes no 2. I like American singing.
yes no 3. I understand American comic books.
yes no 4. Americans understand my study habits.

This person today likes American food now and now understands American comic books. But he doesn't like American singing, nor does he feel that Americans really understand his study habits.

Please do not talk while you are responding to these items. If you need help, raise your hand, and someone will be present to answer your questions.

If you have no more questions, you may start.
DEMOGRAPHIC DATA

PART I

1. social security number________________

2. age____ 3. sex male/female

4. nationality________________________________

5. graduate student/undergraduate student/other________________

6. major________________ 7. profession________________

8. raised in what religion________________

9. I am still practicing this religion yes/no other________

10. I come from
   a) a rural area
   b) a suburban area
   c) an urban area

11. My parents were considered 12. My family was considered
   a) of low income a) well educated
   b) of low-to-middle income b) moderately educated
   c) of middle-to-high income c) poorly educated
   d) of high income

13. Before travelling I had previous contact with Americans
   a) at home d) as friends
   b) at school e) as tourists or guests only
   c) as co-workers f) other________ g) no contact

14. Before travelling I had previous contact with other internationals (people not from the United States nor from my home country)
   a) at home d) as friends
   b) at school e) as tourists or guests only
   c) as co-workers f) other________ g) no contact

15. I travelled in other countries before coming to the U.S.A. yes/no

16. If yes to #15, where________________________________

   for how long________________________________

Please Continue...
17. How long have you been in the United States

18. How long do you plan to stay

19. Do you plan to reside here permanently yes/no/maybe

20. What is your reason for coming?
   a) to study English only  
   b) for general study  
   c) marriage  
   d) business concerns  
   e) other

21. Did you have relatives or friends from your own country waiting for you when you arrived in the U.S? yes/no

22. Did you have American friends waiting for you when you arrived? yes/no

23. Did you have a host family waiting for you when you arrived? yes/no

24. Do you have contact with home (letters, phone calls, newspapers, etc.)?
   a) once a week or more  
   b) 1-3 times a month  
   c) 8-11 times a year  
   d) on special occasions only  
   e) less frequently

25. About what percent of the time have you spent living with
   a) people from your own country  
   b) other internationals  
   c) Americans  
   d) alone  
   e) 0-25% 25-50% 50-75% 75-100%

26. I am currently living with
   a) people from my own country  
   b) other internationals  
   c) Americans  
   d) alone  
   e) with a mixture of people from America and

27. I like to spend as much leisure time as possible with
   a) people from my own country  
   b) other internationals  
   c) Americans  
   d) alone
28. As compared to all the other visitors (tourists, students, migrants, etc.) that I have heard about or known, my ability to communicate is
   a) much poorer  c) about average  e) much better than
   b) poorer       d) better than most
   f) among the best

29. As compared to my status and position in my home country, my status and position here are
   a) much worse  c) the same       e) much better
   b) worse        d) better

30. Compared to when I first arrived in the United States, I am making
   a) very little progress
   b) some progress
   c) good progress
   d) excellent progress

Please STOP and WAIT
SCALES FOR GENERATION I

I. LINGUISTIC

Underline yes or no, whichever is closest to your own feelings or knowledge.

For example:

yes no 1. I can sing in English

yes no 2. I can read and understand comic books in English.

This person feels that he cannot sing in English. (This is alright--many Americans do not feel they can sing either) This person also feels that he can read and understand comic books.

Start here:

yes no 1. I can read, understand, and even laugh at most editorial (political) cartoons.

yes no 2. It is easy to speak in a classroom of Americans (discuss, question, give opinions, etc.).

yes no 3. It is as easy to speak in a formal situation here as in my own country (for example: a business interview, speaking with a supervisor).

yes no 4. American professors seldom ask me to explain or clarify what I have written.

yes no 5. It is easy to speak on the phone with American friends.

yes no 6. It is easy to talk to Americans I don't know too well.

yes no 7. It is easy to joke with Americans.

yes no 8. I no longer need to study English full time.

yes no 9. Americans are not impatient with me when I speak.

yes no 10. It is easy to go to the store and buy what I need.

yes no 11. It is easy to call a business and get information.

yes no 12. It is easy to carry on an informal conversation with Americans.

Please Continue...
I UNDERSTAND AMERICAN . . .

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes  no  1. I understand American singing.

yes  no  2. I understand American study habits.

This person feels that he can understand American singing—the words are clear, the music is beginning to make sense, and he can tell what songs will be sung at what time. However, American study habits are a little strange to him. Americans just seem to study a few minutes before class and this doesn't make sense. (Maybe American student's parents don't understand this either.)

Start here:

yes  no  1. I understand American manners.

yes  no  2. I understand how Americans act with other Americans.

yes  no  3. I understand American goals and philosophies.

yes  no  4. I understand the American sense of humor.

yes  no  5. I understand American values and ideals.

yes  no  6. I understand my American friend's customs.

yes  no  7. I understand American customs.

yes  no  8. I understand the way Americans think.

yes  no  9. I understand how Americans act with me.

yes  no 10. I understand the way Americans behave.

yes  no 11. I understand the way Americans speak.

yes  no 12. I understand my American friend's values and ideals.

yes  no 13. I understand the way Americans dress.

Please Continue...
I understand American reactions to my... PART III

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes no 1. I understand American reactions to my singing.

yes no 2. I understand American reactions to my study habits.

This person feels that Americans don't understand his singing. This person doesn't understand why Americans react as they do to his singing. Perhaps he doesn't think that he sings well, but Americans always want him to sing, and he can't understand why. Perhaps he sings well, but Americans don't seem to like it, and he can't understand why. So, he marks no. If he knew that Americans just didn't enjoy singing, so they always told him to be quiet when he sang (even though he sang well), then he would have marked yes (I understand American reactions to my singing). He knows they don't like it, because they don't like singing. This person does understand American reactions to his study habits. Perhaps he knows that Americans don't like to study very much, so he knows that Americans think he is strange when he spends six hours a day studying.

Start here:

yes no 1. I understand American reactions to my goals and philosophy.

yes no 2. I understand American reactions to the way I dress.

yes no 3. I understand my American friend's reactions to my values and ideals.

yes no 4. I understand American reactions to my relationships with people from my own country.

yes no 5. I understand Americans reactions to the way I think.

yes no 6. I understand my American friend's reactions to my customs.

yes no 7. I understand American reactions to the way I speak.

yes no 8. I understand American reactions to my values and ideals.

yes no 9. I understand American reactions to my manners.

yes no 10. I understand American reactions to the way I behave.

yes no 11. I understand American reactions to my sense of humor.
yes  no 12. I understand American reactions to my customs.

Please Continue...

AMERICANS UNDERSTAND MY ...  PART IV

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes  no 1. Americans understand my singing.

yes  no 2. Americans understand my study habits.

This person feels that Americans understand his singing—they understand why he sings when he does, they understand his vocabulary, they understand what it means to him. It doesn't matter if the Americans like his singing or if they don't like his singing. The Americans understand his singing and he knows this. This person feels that Americans do not understand his study habits. He studies six hours a day, and Americans just cannot understand why anybody would spend six hours a day studying. Perhaps even when he tries to explain to them, they still don't understand—maybe they will someday.

Start here:

yes  no 1. Americans understand my sense of humor.

yes  no 2. Americans understand my manners.

yes  no 3. Americans understand my goals and philosophy.

yes  no 4. Americans understand my customs.

yes  no 5. My American friend understands my customs.

yes  no 6. Americans understand the way I behave.

yes  no 7. Americans understand my values and ideals.

yes  no 8. My American friend understands my values and ideals.

yes  no 9. Americans understand the way I dress.

yes  no 10. Americans understand the way I think.

yes  no 11. Americans understand the way I speak.

Please Continue...
AMERICANS UNDERSTAND MY REACTION TO . . . PART V

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes no 1. Americans understand my reaction to their singing.

yes no 2. Americans understand my reaction to their study habits.

Perhaps Americans don't sing very much at all. You think that this lack of singing makes the Americans unhappy, because they always frown. You tell this to Americans, and they just don't understand you. Maybe they don't even listen to your reasoning. Therefore, Americans don't understand your reaction to their singing, so you mark this statement no. But perhaps Americans know that you think their study habits are really strange, and you have told your friends it is because you just don't understand how they can study for class in just a few minutes while it takes you hours. Perhaps the Americans respond, "yes, we can see why you think our study habits are strange . . . ." You would then mark yes, Americans understand my reaction to their study habits.

Start here:

yes no 1. My American friend understands my reactions to his values and ideals.

yes no 2. Americans understand my reactions to their relationships (how they act with each other).

yes no 3. Americans understand my reaction to their humor.

yes no 4. Americans understand my reactions to the relationship we have together (how we act with each other).

yes no 5. Americans understand my reaction to how they dress.

yes no 6. Americans understand my reaction to their goals and philosophy.

yes no 7. Americans understand my reaction to their values and ideals.

yes no 8. Americans understand my reaction to how they think.

yes no 9. Americans understand my reaction to their manners.

yes no 10. Americans understand my reaction to how they speak.
yes no 11. Americans understand my reactions to their customs.

yes no 12. My American friend understands my reaction to his customs.

yes no 13. Americans understand my reaction to how they behave.

Please Continue...

I AM COMFORTABLE WITH AMERICAN ...

PART VI

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes no 1. I am comfortable with American singing.

yes no 2. I am comfortable with American study habits.

Perhaps Americans don't sing very much. Perhaps this person even understands why Americans don't sing very much (maybe he doesn't understand). But not having any singing around makes this person feel very sad. He is not comfortable with American singing. On the other hand, it doesn't matter to him that Americans only study just before class. That is their problem, not his, so he continues to study six hours a day. He is comfortable with American study habits.

Start here:

yes no 1. I am comfortable with American manners.

yes no 2. I am comfortable with American leisure activities.

yes no 3. I am comfortable with American food.

yes no 4. I am comfortable with the housing situation here.

yes no 5. I am comfortable with American goals and philosophies.

yes no 6. I am comfortable with American customs.

yes no 7. I am comfortable with American values and ideals.

yes no 8. I am comfortable with American dress.

Please Continue...
I AM SATISFIED WITH MY . . .

PART VII

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes no 1. I am satisfied with the quality of my singing here.

yes no 2. I am satisfied with my study habits here.

This person is satisfied that his singing is as good as he expects it to be. He may not be able to sing as often as he likes, but when he does sing, he is satisfied with what he does. On the other hand, he is not satisfied with his study habits. Perhaps he wants to spend fewer hours studying or maybe he wants to spend even more time with his books.

Start here:

yes no 1. I am satisfied with my position here.

yes no 2. I am satisfied with the amount of contact I have with internationals in the U.S. (people neither from my own country nor from the U.S.).

yes no 3. In comparison to before I arrived in the United States, I am satisfied with my general state of health.

yes no 4. I am satisfied with my personal friends here.

yes no 5. I am satisfied with the quality of contact I have with Americans.

yes no 6. I am satisfied with how much independence I have in this country.

yes no 7. I am satisfied with my behavior here.

yes no 8. I am satisfied with my progress here.

yes no 9. I am satisfied with the quality of contact I have with people from my own country here.

yes no 10. I am satisfied with the amount of contact I have with people from my own country here.

yes no 11. I am satisfied with my social life here.

yes no 12. I am satisfied with the quality of contact I have with internationals here.

yes no 13. I am satisfied with the amount of contact I have with Americans here.

yes no 14. I am satisfied with my English.

yes no 15. I am satisfied with my academic or professional life here.

Please Continue...
AMERICANS . . .

PART VIII

Underline yes or no whichever is closest to your own feelings or knowledge.

For example:

yes no 1. Americans sing.

yes no 2. Americans rarely study for a long period of time.

This person has rarely if ever heard Americans sing. On the whole Americans don't sing. This person has also noticed that most Americans do all their homework just before class time, therefore he marks "yes", Americans rarely study for a long period of time.

Start here:

yes no 1. Americans find it easy to get along with others.

yes no 2. Americans are supportive of others.

yes no 3. I can go to Americans with my problems.

yes no 4. Americans listen to what people say to them.

yes no 5. Americans like to be close and personal with people.

yes no 6. Americans are good listeners (they let you say what you want to say without judging your ideas or feelings).

yes no 7. Americans can deal with others effectively.

yes no 8. Americans can easily put themselves in another person's shoes (or position).

yes no 9. Americans ignore other people's feelings.

yes no 10. Americans let others know that they understand them.

yes no 11. Americans generally say the right thing at the right time.

yes no 12. Americans generally know how others feel.

yes no 13. Americans are rewarding (satisfying) to talk to.

yes no 14. Americans understand other people.

yes no 15. Americans usually do not make unusual demands on their friends.

yes no 16. Americans are likeable people.

yes no 17. Americans' personal relations are cold and distant.
yes no 18. Americans are easy to talk to.

You have finished!

Thank you very much for your time and help.
APPENDIX B

COVER LETTER, INSTRUCTIONS, SCALES, DEMOGRAPHIC DATA GENERATION 2
Dear Student,

This is a survey being conducted in partial fulfillment of the requirements for a master's thesis by a researcher who is a graduate of Lewis and Clark College currently enrolled at Portland State University. Mrs. Dimond has given full permission for this research to be conducted on the Lewis and Clark campus. And, this is the kind of research that needs to be conducted so that professors and counselors can better understand and deal with the problems of international students.

You will notice that no names or identification is asked for. There is no record at all of who you are except for your nationality, etc. which is information you complete on the last two pages. All information is confidential.

Your help in promptly and completely finishing this survey is deeply appreciated. When finished, if you would return this form to Mrs. Dimond, L.C. Box 192, on or before noon on Friday, February 13, I would be grateful.

Thank you for your aid.

Sincerely yours,

Janet Metzger
INSTRUCTIONS, GENERATION 2

To the Respondent:

This survey is in two parts. In the first part--pages 2-10--(starting with the page titled LINGUISTICS) underline either yes or no, whichever is closest to what you feel or know now, today. If you felt or knew something in the past, but don't feel or know it now, mark "no." If you think you will feel or know something in the future but don't feel or know it now, mark "no." If you have never felt or known something, or if you disagree with the statement, mark "no." Mark "yes" only if the statement expresses a thought or feeling you now have.

In this part of the survey there are no right answers, there are no wrong answers; all that is important is your true response to the statement, as you are feeling now.

For example:

yes no 1. I like American food.
yes no 2. I like American singing.
yes no 3. I understand American comic books.
yes no 4. Americans understand my study habits.

This person likes American food now and now understands American comic books. But he doesn't like American singing, nor does he feel that Americans really understand his study habits.

Do not leave any statements unanswered. After you finish each page go back and check for any blanks and then underline your response; then go immediately to the next page. It is very important that you work both accurately and quickly. Try to finish this part in 15-20 minutes. Do not discuss these statements with anyone until after you have returned the survey. If you do not understand a word, try to understand what it means from the rest of the sentence. If you still don't understand just how it is being used, respond to what you think it means.

Part II of this survey (pages ) is background data on yourself. Please circle the correct response and/or fill in the blank with an appropriate answer. Again, all information is confidential.
Again: Do not leave any page or any statement blank. Work as accurately and quickly as possible. Return this as soon as possible. Do not discuss this with anyone until after you have returned it.

Thank you for your cooperation in completing this!

Begin here...
SCALES, GENERATION 2

I. LINGUISTICS

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes  no  1. I can sing in English.

yes  no  2. I can read and understand comic books in English.

This person feels that he cannot sing in English. (That is alright—many Americans feel that they cannot sing either.)

This person also feels that he can read and understand comic books in English.

Start here:

yes  no  1. It is easy to speak in a classroom of Americans.

yes  no  2. It is as easy to speak in a formal situation here as in my own country (for example: an interview or a ceremony).

yes  no  3. I don't need to study English anymore in a formal program.

yes  no  4. Americans seldom ask me to explain or clarify what I write.

yes  no  5. It is easy to speak on the phone with American friends.

yes  no  6. It is easy to talk to Americans I don't know too well.

yes  no  7. It is easy to joke with Americans.

yes  no  8. It is easy to go to the store and buy what I need.

yes  no  9. It is easy to call a business and get information.

yes  no  10. It is easy to carry on an informal conversation with Americans.

Please Continue...
II. I UNDERSTAND AMERICAN . . .

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. I understand American singing.
yes no 2. I understand American study habits.

This person feels that she can understand American singing—the words are clear, the music is beginning to make sense, and she can tell what songs will be sung at what time. However, American study habits are a little strange to her. Americans just seem to study a few minutes before class, and this doesn't make sense. (Maybe American students' parents don't understand this either.)

Start here:

yes no 1. I understand American manners.
yes no 2. I understand how Americans act with other Americans.
yes no 3. I understand American goals and philosophies.
yes no 4. I understand my American friend's customs.
yes no 5. I understand American customs.
yes no 6. I understand the way Americans think.
yes no 7. I understand how Americans act with me.
yes no 8. I understand the way Americans act.
yes no 9. I understand the way Americans speak.
yes no 10. I understand my American friend's values and ideals.
yes no 11. I understand the way Americans dress.

Please Continue...
III. I UNDERSTAND AMERICAN REACTIONS TO MY ...

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. I understand American reactions to my singing.
yes no 2. I understand American reactions to my study habits.

This person doesn't understand why Americans react as they do to his singing. Perhaps he doesn't think that he sings well, but Americans always want him to sing, and he can't understand why. Perhaps he sings well, but Americans don't seem to like it, and he can't understand why. So, he marks "no." If he knew that Americans just didn't enjoy singing, so they always told him to be quiet when he sang (even though he sang well), then he would have marked "yes" (I understand American reactions to my singing). He would know they didn't like it just because they didn't like any singing at all. This person does understand American reactions to his study habits. Perhaps he knows that Americans don't like to study very much, so he knows that Americans think he is strange when he spends six hours a day studying.

Start here:

yes no 1. I understand American reactions to my goals and philosophy.
yes no 2. I understand American reactions to the way I dress.
yes no 3. I understand my American friend's reactions to my values and ideals.
yes no 4. I understand American reactions to my relationships with people from my own country.
yes no 5. I understand American reactions to the way I think.
yes no 6. I understand my American friend's reactions to my customs.
yes no 7. I understand American reactions to the way I speak.
yes no 8. I understand American reactions to my values and ideals.
yes no 9. I understand American reactions to my manners.
yes no 10. I understand American reactions to the way I behave.
yes no 11. I understand American reactions to my customs.

Please Continue...
IV. AMERICANS UNDERSTAND MY...

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. Americans understand my singing.
yes no 2. Americans understand my study habits.

This person feels that Americans understand her singing. Perhaps they understand why she sings when she does, or maybe they understand her vocabulary, or maybe they understand what it means to her, or maybe it is all of the above. It doesn't matter if the Americans like or dislike her singing. The Americans understand her singing, and she knows this.

This person feels that Americans do not understand her study habits. She studies six hours a day, and Americans just cannot understand why anybody would spend six hours a day studying. Perhaps even when she tries to explain to them, they still don't understand—maybe they will someday.

Start here:

yes no 1. Americans understand my sense of humor.
yes no 2. Americans understand my manners.
yes no 3. Americans understand my goals and philosophy.
yes no 4. Americans understand my customs.
yes no 5. My American friend understands my customs.
yes no 6. Americans understand the way I act.
yes no 7. Americans understand my values and ideals.
yes no 8. My American friend understands my values and ideals.
yes no 9. Americans understand the way I dress.
yes no 10. Americans understand the way I think.
yes no 11. Americans understand the way I speak.

Please Continue...
V. AMERICANS UNDERSTAND MY REACTION TO . . .

Underline **yes** or **no** whichever is closest to your own feelings or knowledge now, today.

For example:

**yes** no 1. Americans understand my reaction to their singing.

**yes** no 2. Americans understand my reaction to their study habits.

Perhaps Americans don't sing very much at all. You think that this lack of singing makes the Americans unhappy, because they always are frowning. You tell this to Americans and they just don't understand you. Maybe they don't even listen to your reasoning. Therefore, Americans don't understand your reaction to their singing (or lack of it), so you mark this statement "**no**." But perhaps Americans know that you think their study habits are really strange, and you have told your friends even that you think that it is funny that they spend only a few minutes before class to study while you must spend six hours a day. Perhaps the Americans respond, "yes, we can see why you think our study habits are strange . . ."; perhaps they don't say anything, but you know that they understand how you feel about their habits. You would then mark "**yes**." Americans understand my reaction to their study habits.

Start here:

**yes** no 1. Americans understand my reaction to their relationships (how they act with each other).

**yes** no 2. Americans understand my reaction to the relationships we have together (how we act with each other).

**yes** no 3. Americans understand my reaction to how they dress.

**yes** no 4. Americans understand my reaction to their goals and philosophy.

**yes** no 5. Americans understand my reaction to their values and ideals.

**yes** no 6. Americans understand my reaction to how they think.

**yes** no 7. Americans understand my reaction to their manners.

**yes** no 8. Americans understand my reaction to how they speak.

**yes** no 9. Americans understand my reactions to their customs.
yes no 10. My American friend understands my reaction to his customs.

yes no 11. Americans understand my reaction to how they act.

Please Continue...

VI. I AM COMFORTABLE WITH AMERICAN ...
Underline yes or no whichever is closest to your own feelings or knowledge now, today.
For example:
yes no 1. I am comfortable with American singing.
yes no 2. I am comfortable with American study habits.
This person was not comfortable with American singing, but was comfortable with American study habits. These statements have nothing at all to do with how you feel when you sing American songs or when you use American study habits, etc. These statements are just how you feel when you see Americans living their lives.

Start here:

yes no 1. I am comfortable with American manners.
yes no 2. I am comfortable with American leisure activities.
yes no 3. I am comfortable with American food.
yes no 4. I am comfortable with the housing situation here.
yes no 5. I am comfortable with American goals and philosophies.
yes no 6. I am comfortable with American customs.
yes no 7. I am comfortable with American values and ideals.
yes no 8. I am comfortable with American dress.

Please Continue...
VII. I AM SATISFIED WITH MY . . .

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes  no  1. I am satisfied with the quality of my singing here.
yes  no  2. I am satisfied with my study habits here.

This person is satisfied that his singing is as good as he expects it to be, all things considered. He may not be able to sing as often as he likes, but when he does sing, he is satisfied with what he does. On the other hand, he is not satisfied with his study habits. Perhaps he wants to spend fewer hours studying, or maybe he wants to spend even more time with his books.

Start here:

yes  no  1. I am satisfied with my position here.
yes  no  2. I am satisfied with the amount of contact I have with internationals in the U.S. (people from neither my own country nor from the U.S.).
yes  no  3. Compared to before I arrived in the United States, I am satisfied with my general state of health here.
yes  no  4. I am satisfied with my personal friends here.
yes  no  5. I am satisfied with the quality of contact I have with Americans.
yes  no  6. I am satisfied with how much independence I have in this country.
yes  no  7. I am satisfied with my behavior here.
yes  no  8. I am satisfied with my progress here.
yes  no  9. I am satisfied with the amount of contact I have with people from my own country here.
yes  no  10. I am satisfied with my social life here.
yes  no  11. I am satisfied with the quality of contact I have with other internationals here.
yes  no  12. I am satisfied with the amount of contact I have with Americans here.
yes  no  13. I am satisfied with my ability to communicate in English.

Please Continue...
VIII. AMERICANS . . .

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. Americans sing.
yes no 2. Americans rarely study for a long period of time.

This person has rarely if ever heard Americans sing. On the whole, Americans don't sing. This person has also noticed that most Americans do all their homework just before class time, therefore she marks "yes," Americans rarely study for a long period of time.

Start here:

yes no 1. Americans listen to what people say to them.
yes no 2. Americans like to be close and personal with people.
yes no 3. Americans can deal with others effectively.
yes no 4. Americans do not ignore other people's feelings.
yes no 5. Americans let others know that they understand them.
yes no 6. Americans generally say the right thing at the right time.
yes no 7. Americans generally know how others feel.
yes no 8. Americans are rewarding (satisfying) to talk to.
yes no 9. Americans understand other people.
yes no 10. Americans usually do not make unusual demands on their friends.
yes no 11. Americans are likable people.
yes no 12. Americans personal relations are not cold and distant.
yes no 13. Americans are easy to talk to.

Please Continue...
IX. I AM COMFORTABLE . . .

Underline yes or no whichever is closest to your own feelings or knowledge now, today.

For example:

yes  no  1. I am comfortable singing American songs.

yes  no  2. I am comfortable using American study habits.

Perhaps Americans don't have many songs, but this person has learned to sing them all. But, even then, he doesn't feel comfortable with them--they just don't sound right. This person may or may not enjoy studying six hours a day any more like he used to do at home. At any rate, he now enjoys studying just before class like the Americans do--this may or may not be frequent. He is comfortable using American study habits. If he had never tried studying the American way, or if he disliked studying the American way, he would mark "no." These statements have nothing to do with how you feel when you hear Americans sing, or see them study just before class, etc. These statements are about how you feel when you do things "the American way."

Start here:

yes  no  1. I am comfortable using American manners.

yes  no  2. I am comfortable holding American values and ideals.

yes  no  3. I am comfortable wearing American dress.

yes  no  4. I am comfortable eating American food.

yes  no  5. I am comfortable using American customs.

yes  no  6. I am comfortable doing American leisure-time (free-time activities.

yes  no  7. I am comfortable holding American goals and philosophies.

yes  no  8. I am comfortable in American housing.

You have now finished Part I.

Please continue on to Part II...
PART II

1. age

2. sex: male/female

3. nationality

4. profession

5. major

6. undergraduate/masters/Ph.D. candidate/other

7. raised in what religion

8. still practicing this religion: yes/no/other

9. for most of my life I lived in
   a) a farming community
   b) a small town
   c) a large city

10. my parents were considered
   a) of low income
   b) of low-to-middle income
   c) of middle-to-high income
   d) of high income

   11. my family was considered
       a) poorly educated
       b) moderately educated
       c) well educated
       d) progressive/traditional

12. before travelling I had previous contact with Americans

   a) at home
   b) at school
   c) as co-workers

   d) as friends
   e) as tourists or guests only
   f) other
   g) no contact

13. before travelling I had previous contact with other internationals (people from neither the United States nor my home country).

   a) at home
   b) at school
   c) as co-workers

   d) as friends
   e) as tourists or guests only
   f) other
   g) no contact

14. I travelled in other countries before coming to the USA: yes/no

15. if yes to #15, where

   for how long

16. how long have you been in the US (in months)

17. how long do you plan to stay?

18. do you plan to live here permanently: yes/no/maybe

19. what is your reason for coming?
   a) to study English only
   b) marriage
   c) business
   d) study other than English language
   e) other
20. did you have relatives or friends from your own country waiting for you when you arrived in the U.S.: yes/no

21. did you have American friends waiting for you when you arrived in the U.S.: yes/no

22. did you have a host family waiting for you when you arrived in the U.S.: yes/no

23. I have contact with home (letters, phone calls, magazines, etc.)
   a) once a week or more  d) on special occasions only
   b) 1-3 times a month     (birthdays, holidays, etc.)
   c) 8-11 times a year    e) less frequently

24. I have spent about the following percent of time living with
   a) people from my own country 0-25% 25-50% 50-75% 75-100%
   b) other internationals 0-25% 25-50% 50-75% 75-100%
   c) Americans 0-25% 25-50% 50-75% 75-100%
   d) alone 0-25% 25-50% 50-75% 75-100%
   (circle one answer for a, b, c, and d)

25. I am currently living with
   a) people from my own country  c) Americans
   b) other internationals        d) alone

26. I like to spend as much free time as possible with
   a) people from my own country  c) Americans
   b) other internationals        d) alone

27. as compared to all other visitors to the USA that I have heard about, or know (tourists, students, migrants, etc.) my ability to communicate is
   a) much poorer c) about average e) much better than most
   b) poorer       d) better       f) among the best

28. as compared to my status and position in my home country, my status and position here are
   a) much worse c) the same       e) much better
   b) worse        d) better

29. compared to when I first arrived in the USA I am making
   a) very little progress c) good progress
   b) some progress       d) excellent progress

You have now completely finished!
Thank you very much for all your time and help.
APPENDIX C

GENERATION 3
INSTRUCTIONS AND SCALES FOR
INSTRUCTIONS, GENERATION 3

To the Respondent:

This survey is in two parts. In the first part, LINGUISTICS, underline either yes or no, whichever is closest to what you feel or know now, today. If you felt or knew something in the past, but don't feel or know it now, mark "no." If you think you will feel or know something in the future but don't feel or know it now, mark "no." If you have never felt or known something, or if you disagree with the statement, mark "no." Mark "yes" only if the statement expresses a thought or feeling you now have.

In this part of the survey there are no right answers, there are no wrong answers; all that is important is your true response to the statement, as you are feeling now.

For example:

yes  no  a. I like American food.
yes  no  b. I like American singing.
yes  no  c. I understand American comic books.
yes  no  d. Americans understand my study habits.

This person likes American food now and now understands American comic books. But he doesn't like American singing, nor does he feel that Americans really understand his study habits.

Do not leave any statements unanswered. After you finish each page go back and check for any blanks and then underline your response; then go immediately to the next page. It is very important that you work both accurately and quickly. Try to finish this part in 15-20 minutes. Do not discuss these statements with anyone until after you have returned the survey. If you do not understand a word, try to understand what it means from the rest of the sentence. If you still don't understand just how it is being used, respond to what you think it means.

Part II of this survey (pages ) is background data on yourself. Please circle the correct response and/or fill in the blank with an appropriate answer. Again, all information is confidential.
Again: Do not leave any page or any statement blank. Work as accurately and quickly as possible. Return this as soon as possible. Do not discuss this with anyone until after you have returned it.

Thank you for your cooperation in completing this!

Begin Here...
SCALES, GENERATION 3

I. LINGUISTICS

PART I

Underline yes or no, whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. I can sing in English.

yes no 2. I can read and understand comic books in English.

This person feels that he cannot sing in English. (That is alright--many Americans feel that they cannot sing either.) This person also feels that he can read and understand comic books in English.

Start here:

yes no 1. It is easy to speak in a classroom of Americans.

yes no 2. It is easy to speak on the phone with American friends.

yes no 3. It is easy to talk to Americans I don't know too well.

yes no 4. It is easy to joke with Americans.

yes no 5. It is easy to go to the store and buy what I need.

yes no 6. It is easy to call a business and get information.

yes no 7. It is easy to carry on an informal conversation with Americans.

Please Continue...
II. I UNDERSTAND AMERICAN... 

Underline yes or no, whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. I understand American singing.

yes no 2. I understand American study habits.

This person feels that she can understand American singing—the words are clear, the music is beginning to make sense, and she can tell what songs will be sung at what time. However, American study habits are a little strange to her. Americans just seem to study a few minutes before class, and this doesn't make sense. (Maybe American students' parents don't understand this either.)

Start here:

yes no 1. I understand American manners.

yes no 2. I understand American goals and philosophies.

yes no 3. I understand my American friend's customs.

yes no 4. I understand most American customs.

yes no 5. I understand the way Americans think.

yes no 6. I understand the way Americans act.

yes no 7. I understand my American friend's values and ideals.

yes no 8. I understand the way Americans dress.

Please Continue...
III. I UNDERSTAND AMERICAN REACTIONS TO MY...

Underline *yes* or *no*, whichever is closest to your own feelings, or knowledge now, today.

For example:

yes  no  1. I understand American reactions to my singing.
   yes  no  2. I understand American reactions to my study habits.

This person doesn't understand why Americans react as they do to his singing. Perhaps he thinks he sings poorly, but Americans always want him to sing. He doesn't understand why. Perhaps he sings well, but Americans don't seem to like it, and he can't understand why. So, he marks "no." If he knew that Americans did not enjoy anyone's singing (and therefore did not like his) then he would have marked "yes" (I understand American reactions to my singing). They don't like it because they just don't like singing.

This person does understand American reactions to his study habits. Perhaps he knows that Americans don't like to study very much, so he knows that Americans think he is strange when he spends six hours a day studying.

Start here:

yes  no  1. I understand American reactions to my goals and philosophy.
yes  no  2. I understand American reactions to the way I dress.
yes  no  3. I understand my American friend's reactions to my values and ideals.
yes  no  4. I understand American reactions to my relationships with people from my own country.
yes  no  5. I understand American reactions to the way I speak.
yes  no  6. I understand American reactions to my values and ideals.
yes  no  7. I understand American reactions to my manners.
yes  no  8. I understand American reactions to the way I behave.

Please Continue...
VI. I AM COMFORTABLE WITH AMERICAN . . .

Underline yes or no, whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. I am comfortable with American singing.
yes no 2. I am comfortable with American study habits.

This person is not comfortable with American singing, but is comfortable with American study habits. These statements have nothing at all to do with how you feel when you sing American songs or when you use American study habits, etc. These statements are just how you feel when you see Americans living their lives.

Start here:

yes no 1. I am comfortable with American manners.
yes no 2. I am comfortable with American leisure activities.
yes no 3. I am comfortable with American food.
yes no 4. I am comfortable with American goals and philosophies.
yes no 5. I am comfortable with American customs.
yes no 6. I am comfortable with American values and ideals.
yes no 7. I am comfortable with American dress.

Please Continue...
VII. I AM SATISFIED WITH MY ...

Underline **yes** or **no**, whichever is closest to your own feelings or knowledge now, today.

For example:

**yes**  no  1. I am satisfied with the quality of my singing here.

**yes**  no  2. I am satisfied with my study habits here.

This person is satisfied that his singing is as good as he expects it to be, all things considered. He may not be able to sing as often as he likes, but when he does sing, he is satisfied with what he does. On the other hand, he is not satisfied with his study habits. Perhaps he wants to spend fewer hours studying, or maybe he wants to spend even more time with his books.

Start here:

**yes**  no  1. I am satisfied with my personal friends here.

**yes**  no  2. I am satisfied with my progress here.

**yes**  no  3. I am satisfied with the contact I have with people from my own country here.

**yes**  no  4. I am satisfied with my social life here.

**yes**  no  5. I am satisfied with the contact I have with Americans here.

**yes**  no  6. I am satisfied with my ability to communicate in English.

Please Continue...
VIII. AMERICANS...

Underline yes or no, whichever is closest to your own feelings or knowledge now, today.

For example:

yes  no  1. Americans sing.
yes  no  2. Americans rarely study for a long period of time.

This person has rarely if ever heard Americans sing. On the whole, Americans don't sing. This person has also noticed that most Americans do all their homework just before class time, therefore she marks "yes," Americans rarely study for a long period of time.

Start here:

yes  no  1. Americans listen to what people say to them.
yes  no  2. Americans like to be close and personal with people.
yes  no  3. Americans let others know that they understand them.
yes  no  4. Americans are rewarding (satisfying) to talk to.
yes  no  5. Americans understand other people.
yes  no  6. Americans usually do not make unusual demands on their friends.
yes  no  7. Americans are likable people.
yes  no  8. Americans are easy to talk to.

Please Continue...
IX. I AM COMFORTABLE ... 

Underline yes or no, whichever is closest to your own feelings or knowledge now, today.

For example:

yes no 1. I am comfortable singing American songs.
yes no 2. I am comfortable using American study habits.

Perhaps Americans don't have many songs, but this person has learned to sing them all. Yet, even then, he doesn't feel comfortable with them—they just don't sound right. This person may or may not enjoy studying six hours a day anymore (like he used to do at home). At any rate, he now enjoys studying just before class like the Americans do (this may or may not be often). He is comfortable using American study habits. If he had never tried studying the American way, or if he disliked studying the American way, he would mark "no." These statements have nothing to do with how you feel when you hear Americans sing, or see them study just before class, etc. These statements are about how you feel when you do things "the American way."

Start here:

yes no 1. I am comfortable using American manners.
yes no 2. I am comfortable holding American values and ideals.
yes no 3. I am comfortable wearing American dress.
yes no 4. I am comfortable (I enjoy) eating American food.
yes no 5. I am comfortable using American customs.
yes no 6. I am comfortable doing American leisure-time (free time) activities.
yes no 7. I am comfortable holding American goals and philosophies.
yes no 8. I am comfortable in American housing.

You have now finished Part I.
Please continue on to Part II.
APPENDIX D

RANK ORDER OF SCALE ITEMS
GENERATIONS 2, 3
RANK ORDER OF SCALE ITEMS
GENERATIONS 2, 3

These are the rank order of items on scales I, II, VI, VII, VIII, and IX for generations 2 and 3. They are arranged in order from the easiest (most frequently passed) to the most difficult (least frequently passed).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item 1</th>
<th>Item 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>go to the store and buy what I need.</td>
<td>go to the store and buy what I need.</td>
</tr>
<tr>
<td>2</td>
<td>carry on an informal conversation with Americans.</td>
<td>carry on an informal conversation with Americans.</td>
</tr>
<tr>
<td>3</td>
<td>speak on the phone with American friends.</td>
<td>speak on the phone with American friends.</td>
</tr>
<tr>
<td>4</td>
<td>call a business and get information.</td>
<td>call a business and get information.</td>
</tr>
<tr>
<td>5</td>
<td>talk to Americans I don't know too well.</td>
<td>talk to Americans I don't know too well.</td>
</tr>
<tr>
<td>6</td>
<td>speak in a classroom of Americans.</td>
<td>speak in a classroom of Americans.</td>
</tr>
<tr>
<td>7</td>
<td>joke with Americans.</td>
<td>joke with Americans.</td>
</tr>
<tr>
<td>8</td>
<td>speak in a formal conversation here as in my own country.</td>
<td></td>
</tr>
</tbody>
</table>

Dimension II. I Understand American

I understand ...  

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>the way American's speak.</td>
</tr>
<tr>
<td>2</td>
<td>my American friend's customs.</td>
</tr>
<tr>
<td>3</td>
<td>my American friend's customs.</td>
</tr>
<tr>
<td>4</td>
<td>the way Americans dress.</td>
</tr>
<tr>
<td>5</td>
<td>the way Americans dress.</td>
</tr>
<tr>
<td>6</td>
<td>most American customs.</td>
</tr>
<tr>
<td>7</td>
<td>most American customs.</td>
</tr>
<tr>
<td>Rank</td>
<td>Item No.</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
</tr>
</tbody>
</table>

**Dimension VI. I am Comfortable with American**

I am comfortable with American ...  

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>
**Dimension VII. I am Satisfied with My**

I am satisfied with...

<table>
<thead>
<tr>
<th>Rank no.</th>
<th>Item no.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>how much independence I have in this country.</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>my general state of health here.</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>my personal friends here.</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>my progress here.</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>my behavior here.</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>my position here.</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>the <strong>amount</strong> of contact I have with internationals in the U.S.</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td>the <strong>quality</strong> of contact I have with other internationals here.</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>the <strong>amount</strong> of contact I have with people from my own country here.</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>my social life here.</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>my ability to communicate in <strong>English</strong>.</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>the <strong>amount</strong> of contact I have with Americans here.</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>the <strong>quality</strong> of contact I have with Americans.</td>
</tr>
</tbody>
</table>
### Dimension VIII. Americans

<table>
<thead>
<tr>
<th>Rank No.</th>
<th>Item No.</th>
<th>Item</th>
<th>Rank No.</th>
<th>Item No.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>are easy to talk to.</td>
<td>8</td>
<td>13</td>
<td>are easy to talk to.</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>are likable.</td>
<td>7</td>
<td>11</td>
<td>are likable.</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>let others know that they understand them.</td>
<td>3</td>
<td>5</td>
<td>let others know that they understand them.</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>are rewarding (satisfying) to talk to.</td>
<td>4</td>
<td>8</td>
<td>are rewarding (satisfying) to talk to.</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>can deal with others effectively.</td>
<td>1</td>
<td>3</td>
<td>listen to what people say to them.</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>listen to what people say to them.</td>
<td>6</td>
<td>1</td>
<td>do not make unusual demands on their friends.</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>personal relations are not cold and distant.</td>
<td>2</td>
<td>12</td>
<td>like to be close and personal with people.</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>do not ignore other people's feelings.</td>
<td>5</td>
<td>4</td>
<td>understand other people.</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>do not make unusual demands on their friends.</td>
<td>3</td>
<td>10</td>
<td>generally say the right thing at the right time.</td>
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<tr>
<td>10</td>
<td>6</td>
<td>generally say the right thing at the right time.</td>
<td>1</td>
<td>6</td>
<td>do not make unusual demands on their friends.</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>like to be close and personal with people.</td>
<td>2</td>
<td>2</td>
<td>like to be close and personal with people.</td>
</tr>
<tr>
<td>12</td>
<td>9</td>
<td>understand other people.</td>
<td>1</td>
<td>9</td>
<td>understand other people.</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>generally know how others feel.</td>
<td>1</td>
<td>7</td>
<td>understand other people.</td>
</tr>
</tbody>
</table>

### Dimension IX. I am Comfortable

<table>
<thead>
<tr>
<th>Rank No.</th>
<th>Item No.</th>
<th>Item</th>
<th>Rank No.</th>
<th>Item No.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>using American manners.</td>
<td>8</td>
<td>8</td>
<td>using American manners.</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>wearing American dress.</td>
<td>3</td>
<td>3</td>
<td>wearing American dress.</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>doing American leisure time (free time) activities.</td>
<td>6</td>
<td>6</td>
<td>doing American leisure time (free time) activities.</td>
</tr>
<tr>
<td>rank</td>
<td>item no.</td>
<td>item</td>
<td>item no.</td>
<td>item</td>
<td></td>
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<tr>
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<td>-------------------------------</td>
<td>----------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>using American manners.</td>
<td>1</td>
<td>using American manners.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>eating American food.</td>
<td>4</td>
<td>eating American food.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>using American customs.</td>
<td>5</td>
<td>using American customs.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>holding American values and ideals.</td>
<td>2</td>
<td>holding American values and ideals.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>holding American goals and philosophies.</td>
<td>7</td>
<td>holding American goals and philosophies.</td>
<td></td>
</tr>
</tbody>
</table>