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When cultural rules conflict: miscommunications between ISU international students and ISU/Ames community members

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When cultural rules conflict:
Miscommunications between ISU international students
and ISU/Ames community members

by

Cecelia Marie Halwani

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF ARTS

Department: Sociology and Anthropology
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Signatures have been redacted for privacy

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INTRODUCTION

During her stay in the host country, the international student often finds herself in unexpected and confusing situations in which the rules of behavior with which she has grown up no longer seem to work. This student may be extremely conscientious about behaving in the proper manner, as she was taught in her own country; however, in a strange environment, people do not always react as expected. A gesture of respect may be met with confusion. Seemingly simple rules of etiquette may evoke disgust. Attempts to appear friendly or appealing may elicit hostility from our student's American acquaintances. As Wilson (1982:22) tells us, "Kinesthetic gestures and paralinguistic cues are culture bound. Some 'normal ones' in one culture may be obscene in another."

Such predicaments seem to be commonplace for the international student in the United States. Naoko Ozawa, a student in the School of Social Work at the University of Wisconsin - Madison, for example, reported difficulties adjusting in all aspects of her academic and personal life due to conflicts between the American and Japanese cultures (Clarke and Ozawa, 1970). Problems such as those experienced by Ozawa are perpetuated by the foreign student's avoidance of many situations in which she would be afforded an opportunity to practice the new cultural rules which she learns. "Part of the reluctance of foreign students to mix with Americans is due to fear of saying and doing the wrong thing" (Dennis, 1944:6). Wilson (1982:21) states further, "The culture (the learned behavior) of one's primary group can often be in conflict with the culture of the dominant group."

Such conflicts do not occur only within student populations, but rather can come into play in any instance of intercultural communication. Speaking of contact between Chinese and American businessmen, E. T. Hall (Hall, 1976:66) notes:

All human beings are captives of their culture...we are apt to try to read their [the Chinese] true intentions from what they do rather than what they say. But in so doing, and by assuming that behavior means pretty much the same around the world, we anticipate their actions as if they were Americans---whereas, they read our behavior with strong Chinese overtones. That could lead to serious misunderstandings.
Those studying at Iowa State University are not exempt. In every day situations, acting according to their own cultural rules, Iowa State's international students are often likely to become embarrassed and confused when their own cultural rules are in conflict with those followed by members of the Ames/ISU community. Furthermore, they may be quite unaware as to the source of this embarrassment and confusion. Again quoting E. T. Hall as interviewed by E. Hall (1976:69):

Since much of culture operates outside our consciousness, frequently we don't even know that we know....We unconsciously learn what to notice and what not to notice, how to divide time and space, how to walk and talk and use our bodies, how to behave as men and women, how to relate to other people, how to handle responsibility, whether experience is seen as whole or fragmented. This applies to all peoples. The Chinese or the Japanese or the Arabs are as unaware of their assumptions as we are of our own. We each assume that they are part of human nature. We think of as 'mind' is really internalized culture.

The Initial Project--Phase I

This problem of miscommunication between Iowa State international students and the Ames/ISU community prompted Ms. Catherine Cruikshank, an international student from Ghana, attending Iowa State, to begin looking for solutions. Ms. Cruikshank was a graduate student studying cultural anthropology through the Department of Sociology and Anthropology. During the spring quarter, 1980, she and Margarite Sibley were working under Dr. Norma Wolff. Dr. Wolff was teaching cultural anthropology (Anthropology 218) at the time and these graduate students assisted her by conducting the experiential laboratory sessions. Ms. Cruikshank discussed her concerns with Dr. Wolff and Ms. Sibley, citing examples of awkward situations in which she had found herself because of miscommunications due to cultural differences. Aware that other international students with whom Ms. Cruikshank was acquainted were also experiencing similar problems, she, Ms. Sibley, and Dr. Wolff developed the idea for a handbook, to be distributed to
Iowa State international students. It was their hope that this handbook would help such students to recognize situations in which they may misunderstand or be misunderstood by those around them as a result of cultural differences.

The idea of a handbook was an exciting one; however, preliminary work had to be done before such a booklet could be written. Problems needed to be identified and defined. Thus, in an attempt to pinpoint common areas in which miscommunication occurs between Iowa State international students and Ames/ISU community members, the study discussed in this thesis was developed.

As development of the study progressed, the three women determined that the project could also be part of a learning experience for Anthropology students. These students could assist in collecting the necessary data and at the same time gain experience in using anthropological fieldwork techniques. Dr. Wolff, Ms. Cruikshank, and Ms. Sibley wrote the format for informal interviews to be conducted by Anthropology 218 students with willing international students and incorporated the activity into the class syllabus as an "Exercise in Applied Anthropology" (see Appendix A). The project was designated as the final assignment required for completion of the course.

Anthropology 218 students were informed that the exercise would provide valuable data for an applied project that was underway and would lead to the development of a handbook for international students. They were assured anonymity for themselves and the international students providing information. Students were also given the option as to whether they would submit their projects for use in the study. Those students who agreed to submit their data became part of the project, obtaining not only an opportunity to practice fieldwork techniques learned throughout the course but also a chance to make a contribution to the orientation, training, and support of Iowa State's international students.
Further Evolution of Phase I--Data Collection

Data for the project were first collected in spring quarter, 1980, when Ms. Cruikshank and Ms. Sibley taught the lab sections under Dr. Wolff. Thirty-nine cases were collected during that first quarter.

It was during the second collection period, fall quarter, 1980, that I was introduced to the project. At that time, I was the teaching assistant conducting the lab sections for Dr. Wolff and, therefore, I coordinated data collection for that session. The course was offered again spring quarter, 1981, under Dr. Shu-min Huang. As in fall, I was his teaching assistant and continued to collect data. Data were also collected spring semester, 1982, when Dr. Huang again taught the class; however, Corene Bakken, also a graduate student studying cultural anthropology, was then the teaching assistant. Ms. Bakken and I worked closely in preparing for the class in order to remain consistent in the manner in which instructions were given.

During spring, 1982, we began to see a change in enrollment in Anthropology 218. The university had changed from a quarter system to a semester system and fewer students enrolled in the class. The decrease drastically affected the number of cases collected that semester. The final collection period was summer, 1982. Here again, enrollment dropped significantly with only five cases submitted for use in the project that session. Dr. Helen Schuster taught the class and the lab sections that summer and was careful to duplicate the instructions given previously.

Phase II Emerges--Analyzing the Data

In spring, 1981, I became more actively involved in the project. Ms. Cruikshank was no longer attending Iowa State and Ms. Sibley was not currently active in the anthropology program. Dr. Wolff was still collecting data for the project but, to date, had not had the opportunity to design the analysis
phase of the study. I expressed my interest in helping tabulate the data and in assisting in some way with the compilation of the handbook. It was not until spring, 1982, that I became seriously committed and took on the remainder of the project as the topic of my graduate thesis.

Before analysis could begin, descriptions of embarrassing incidents, which were being collected by our students, needed to be broken down into specific elements and coded. This would allow situations to be compared. Tabulations could be made of the frequency of specific problems as well as forms of communicative behavior occurring during the incident. Deriving meaningful categories took considerable research and much trial and error. Once this was finished and each incident was coded, the data could be tabulated and final analysis completed. (See "Analyzing the Data" in the chapter entitled "Methodology" for the definition and description of categories and their components used to classify and code the data.) (See Appendix B for an example of the data form used for coding purposes.)

Moving into Phase III--Using the Data

My decision to commit myself to this project was influenced by a number of experiences with international students as well as by a firming up of my own commitment to the importance of developing an understanding of the dynamics of all forms of communication and the inclusion of such an understanding in a program for international students.

Particularly after my marriage in 1978 to a student from Lebanon, I found myself more and more involved with the international community in Ames. As part of a bicultural family, I experienced first hand the multitude of misunderstandings that arise between people whose communication is governed by very different and often opposing sets of cultural beliefs, values, rules, and mores. Much of my social, academic, and professional life also revolved around contacts with international sojourners. Some of my more structured experiences during that period included: work in the English as a Foreign Language (EFL) Lab; tutoring foreign students; typing and proofreading papers, thesis, and dissertations for foreign graduate and undergraduate students; and
working with African and Middle Eastern students who functioned as paid informants for the experiential laboratory sections for linguistic anthropology (Anthropology 221). Understanding the basis of misunderstandings that occur in intercultural communication became as much a means of survival in my multi-cultural world as a means of furthering my academic investigation and satisfying my own intellectual curiosity.

Brein and David (1971:215) tell us, "Thus, intercultural communication appears to be both an integrating and crucial factor for understanding the adjustment of the sojourner." My own observations and reflections upon the experiences mentioned above tended to reinforce Brein and David's conclusion for me. Thus, my commitment to the value of the project and the need for some means of improving the Iowa State international student's ability to send and receive nonverbal as well as verbal messages more effectively to members of the Ames/ISU community was strengthened.

I hypothesized that if this could be accomplished, the international student's educational experience as well as his/her contribution to the community would be at the least more clearly understood and at the most one of mutual value and satisfaction for student and community.

In his review of literature regarding educational exchange programs, Davis (1973) stresses the prevalence of evidence indicating the need for involving visiting students in American life. Among others, he cites Schild (1962) who notes a particular need for the international student to take on a particular observer role. Davis' review indicates further that the more successful an international student is in passing from the role of observer and student to the role of participant and contributor, "the greater the likelihood that his cross-cultural experience will broaden his understanding of the host country and leave him with favorable attitudes towards it" (1973:5). It was hoped that the handbook would help facilitate the achievement of this "participant" role.

Along with the handbook, it was determined that recommendations should also be presented to the Office of International Educational Services at Iowa State for consideration and possible incorporation into orientation, English as a Foreign Language, and/or ongoing support programs.
provided through the university to the international student population. These recommendations, along with suggestions for use of the handbook, would be included in a teacher's guide.

The handbook and its supplement would include planned encounters between Ames/ISU community members and international students in order to provide direct experience in practicing new skills as well as the opportunity to establish relationships between international students and Americans who also are concerned with improving intercultural communication within the community. As Bataille (1975:2) noted in reference to a tutoring program designed to help foreign wives improve their English communication skills and gain living skills pertinent to the community, "The greatest facet of the tutoring program is the opportunity for a strong one-to-one relationship with someone from a different culture."

As the project described in this thesis evolved, the model of cross-cultural communication, presented in the chapter "Theoretical Orientation," was also developed. This model serves to define the communication process and its relationship to culture as I refer to it in this study.
OBJECTIVES OF THE STUDY

The major objectives of Phase II and III as described in this thesis were as follows.

Phase II

1. To identify situations encountered by Iowa State international students in which differences in cultural rules have caused miscommunication between the international student and Ames/ISU community member(s).
2. To develop an instrument to be used in coding information presented in each case collected, according to type of interpersonal involvement, behavior(s) exhibited, and communication mode(s) used.
3. To develop an inventory of communicative behaviors most commonly involved in these miscommunications.
4. To begin to identify possible relationships between personal and cultural variables describing the informant and the types of problems, behaviors, and communicative modes described in the interviews.

Phase III

1. To begin compiling a handbook or workbook for international students at Iowa State which would alert them to common situations in which miscommunication may occur.
2. To utilize information from this study to recommend appropriate approaches which might be used to improve Iowa State international students' communicative skills, particularly in the area of nonverbal communication, thus helping to increase the sojourner's satisfaction in his/her educational experience at Iowa State.
3. To include within recommendations presented, suggestions for appropriate opportunities for Iowa State international students to form mutually satisfying relationships with Ames/ISU community members, thus increasing the possibility for successful experiences in intercultural communication.

4. To identify future directions for research on international students and their needs, particularly in regard to improved intercultural communication.
LITERATURE REVIEW

This literature review is divided into two main sections: 1) The International Student in the United States and 2) Communication. The first section will include a review of a broad spectrum of literature regarding the international student in the United States, his/her special problems and needs, and possible solutions to those problems. The second section is on communication and begins with a subsection on the process of communicating. This is followed by a discussion of cross-cultural communication and an in-depth examination of nonverbal communication.

The International Student in the United States

Stewart E. Fraser provided a historical look at the education of international students in America (1969). As Fraser paraphrased R. E. Hughes, a prominent English educator around 1900, a nation's educational system can only be understood within its own environmental setting. A reflection of the characteristics of that nation's people, it is "an expression of its nation's genius" (Fraser, 1969:26). The "habitat" of any educational system is fixed--an indigenous product of the country or area in which the system of training best adapted to its present needs, and most capable of developing in such a way as to meet future needs" (Fraser, 1969:27). In spite of this tendency for educational systems to teach according to the values of the host country, people have continued throughout the centuries to send a portion of their more promising youth away from the home country to be educated abroad. According to Fraser, across the world there has been a gradual trend, particularly within the twentieth century, towards a greater tolerance and awareness of outside concepts and ideas. "Although, however, each system is, as we have said, characteristic, yet they all reveal certain general tendencies which show unmistakably the growth of world-citizenship that is going on over the globe" (Fraser, 1969:26).

Fraser's article may lead us to question the relevance of American education for the international student. Lawrence J. Dennis (1979) explored just this question. According to Dennis, since an
educational system imparts the mores of a society, the international student gains more than just knowledge about subject matter. He/she should exercise judgement about the relevancy of knowledge learned abroad when returning to his/her own culture. Dennis went on to point out that having international students in the United States is also relevant to Americans since it provides us with a chance to learn about the values of others. Education, then, should take on a global perspective. He continued, saying that priorities should be drastically overhauled on a worldwide basis. Dennis concluded that an American education will be relevant for the international student if it provides productive relationships between student and teacher, community and school, educational system and society.

One concern in evaluating education for international students may be student attitude toward America. A. Matin Royeen (1981) explored this in a study at the University of Cincinnati, designed to evaluate the perceptions and attitudes of Taiwanese and Indian students (two nationalities which provided the largest influx of students to that university) toward the United States and the American people. Six months later, Royeen also attempted to measure any changes in student attitude by re-administering the questionnaire which had been used to measure student attitude. Initially, it was determined that the subjects showed a trend toward greater inner-directedness in contrast to the typical American social character described, in contrast, to the typical American social character described as other-directed with dependence on large groups. In regard to adjustment factors, Royeen noted that both groups suggested that the university provide more assistance in obtaining housing for international students. Academic satisfaction increased over six months but greater dissatisfaction developed over time with American foreign policy. In regard to social relations, the test group saw Americans as materialistic, free, liberal, individualistic, and friendly. Royeen did not comment on the relative value the subjects put on these characteristics.

A five-year study at Brigham Young University's Hawaii campus was conducted in order to determine acculturation effects among students from nine cultural groups attending that American
university. The study was reported by Morris Graham (1983). Graham hypothesized that acculturative stress would be greater among cultural groups where the gap between the traditional and the imposed (host) culture is greatest. In his study, Graham defined acculturative stress as "those individual states and behaviors that are mildly pathological and disruptive, including those problems of mental health and psychosomatic symptoms so often observed during social change" (1983:80). Findings showed that Samoan students, the group whose culture was most different from the host culture, suffered significantly more acculturative stress. Chinese students were found to be the most successfully adapted culture group. It was further shown that English language usage imposed the greatest discrimination barrier to all non-American cultures. Self-image, according to Graham, was highly influence by the verbal and nonverbal feedback from others. (Being understood became equated with acceptance and appreciation, whereas, being misunderstood was equated with confusion, frustration, anxiety, and depression. Four recommendations were offered for minimizing acculturative stress on a multicultural campus: 1) the establishment of levels of competency in English language proficiency as a criterion for admission, 2) multicultural orientation to entering students, senior student cultural "mentors," and peer group counseling, 3) student groups and clubs that each represent a mosaic of cultures, and 4) "the provision of an educational experience that fosters unique sensitivity and assistance to cultural identities and inherent difficulties of passage and transition" (Graham, 1983:80).

Helen Clarke and Martha (Naoko) Ozawa (1970) provided an overview regarding the foreign student in the United States. After reviewing previous studies, a comparison of faculty and student comments regarding problems experienced by foreign students, curriculum problems, and resources available for foreign students was examined. In order to illustrate this discussion, a case study was presented of Naoko Ozawa's experiences as one of Clarke's graduate students in the School of Social Work at the University of Wisconsin - Madison. This autobiographical sketch of a native of Japan provided an overview of the types of problems she experienced while at the university as well as the
reasoning behind the approach she took to her education in the United States. This discussion provided good insight into the differences between American and Japanese culture, particularly in regard to values and attitudes. In general, Clarke's approach to the difficulties involved in adjusting to a new educational system in a strange land seemed somewhat naive. Ozawa's contribution, however, was more objective, although her identification with her own Japanese values was obvious in her criticism of the American social and educational systems.

Motoko Y. Lee, Mokhtar Abd-Ella, and Linda A. Burks' book, *Needs of Foreign Students from Developing Nations at U. S. Colleges and Universities* (1981), summarized Phase II of a major research project undertaken in 1978, by the National Association for Foreign Student Affairs (NAFSA). The objective of this project was:

> to determine met and unmet needs of foreign students from developing countries in the U.S. and to assess whether the self perceived needs of A.I.D. (Agency for International Development) sponsored students are different from or similar to those of other foreign students, both sponsored and nonsponsored (Lee, et al. 1981:xi).

During Phase I, the research design was formulated. Phase II involved administration of a nationwide survey designed to assess the needs of A.I.D. sponsored, other sponsored, and nonsponsored students as the students themselves perceive those needs. Findings indicated that needs were not satisfied to the level of student expectation on any variable. Most were, however, satisfied at least to some degree. The needs least met, need for practical experience in their field of study and anticipated post-return need for material reward, professional opportunity, and facilities, were also the most difficult for educational institutions to address. In order to meet the first, it was recommended that programs be designed to incorporate practical experience in the chosen field of study or internships into the educational experience. To meet the second need here mentioned, sponsoring agencies and United States educational institutions were urged to view education as a continuing process and to maintain professional links with students after they return home.
Re-entry/transitional workshops during the last year of study, intensive English language and pre-academic orientation programs commencing prior to regular academic training were also recommended in order to meet other identified needs.

A notion which has surfaced over and over in the literature is the importance of communication in the adjustment of the international student and the success of his/her educational experiences in the United States. Although it did not deal directly with international students, a paper by Carol J. Pierce Colfer (1983) provided another perspective on the role of communication in cross-cultural experiences. Colfer's paper concentrated on the concept of communication among "unequals" and was stimulated by the problem in international development of communication between development personnel and members of the populations with whom they worked. Expanding on the work of Bateson and the Ardeners, Colfer proposed a theoretical framework which incorporated various phenomena such as the inarticulateness of certain groups when they find themselves communicating with "unequals." In this paper, Colfer defined "unequals" as "categories of people with differential access to resources and power; [the term does not refer] to any fundamental or inherent patterned inequality" (1983:263). Three ethnographic examples of communication between unequals and the resulting "inarticulateness" are provided: 1) urban and rural dwellers in Iran, 2) women and men of two subcultures in rural America, and 3) male and female scientists from different countries and different scientific paradigms. In analyzing these situations, Colfer determined that the lower status person must be aware of two interpretations in a communicative situation, his own as well as that of the upper status person, and must participate in both systems simultaneously. If the lower status person is to construct an articulate model, he must be much more creative than the other person who only has one cultural system for which to account.

William B. Gudykunst (1983) reviewed the concept of the stranger as it has been used in the anthropological, sociological, and intercultural relations literature. He proposed a typology of stranger-host relationships and discussed implications of the typology for integrating research
regarding foreign students, sojourners, and other "strangers." Yielding nine types of strangers, the typology crossed host reaction to the stranger with the stranger's interest in the host community.

Michael Brein and Kenneth H. David (1971) discussed the social psychological factors related to the adjustment problems of the sojourner. Their extensive review of the literature focused on the types of problems encountered as well as the factors contributing to the problems. The authors concluded that "intercultural communication appears to be both an integrating and crucial factor for understanding the adjustment of the sojourner" (Brein and David, 1971:215).

One component of educational exchange not yet discussed in this chapter is work experience. James L. Davis (1973) examined this component in a study of U.S. Exchange Visitor Program P-III-4320. This study evaluated the effects of a summer exchange program in 1972, and followed eight British students and eight Irish students who visited the United States under the program that summer. Findings are presented in the form of case studies. Davis found that the working student becomes a participant in American life in four ways: 1) through the job, 2) through the place of residence, 3) through contacts with fellow workers, and 4) through efforts of American friends and relatives. He concluded that the more fully the student participates, the greater positive effect the experience will have upon him or her. Changes may take several forms: a) altered perceptions, b) increased self confidence, c) greater understanding of the United States and its people, d) more favorable attitudes toward the American people, e) new insights into the student's own culture, f) insight into his/her own personality, and g) at the highest level, "feelings of empathy with Americans and a sense of affinity with all people" (Davis, 1973:25). Davis warned that some jobs inhibit participation in American culture and actually may serve to isolate students, resulting in the creation and reinforcement of negative attitudes toward the United States.

The effect of length of time in the United States in regard to the number, severity, and category groupings of problems the foreign student experiences was studied by Jerry R. Day (1968). This study of foreign male students at the Oklahoma State University looked at three distinct periods of
time that previous research had indicated would characterize the student's sojourn at the university: 1) 1-10 months, 2) 11-21 months, and 3) 22+ months. Day examined each period with the intention of identifying characteristics of each period that made them different from the others. He also compared undergraduate and graduate students to see if there were unique differences between the problems experienced by each and whether the same periods would apply to each. The results showed that certain groups of problems were unique to certain times and college level groups. Day suggested that this information should be utilized in dealing with and planning for student programs. "The American institutions of higher learning will have to employ greater variety, imagination, and flexibility in dealing with foreign students" (Day, 1968:3).

In order to investigate the effects of an English language training and orientation program on foreign student adaptation, Stephen C. Dunnett (1977) compared 96 graduate and undergraduate students who participated in a six-week summer English language training and orientation program in an intensive English language institute with 96 others who did not participate. It was found that the foreign students who participated in the program had fewer difficulties in adapting during the first semester of study. These students were particularly well-adapted in coping, being prepared for how to deal with and survive in the university system as well as being aware of what problems to expect. Emotional adjustment seemed least affected and the author suggested that this area may need additional attention in future programs. The program seemed to have a significant effect on socialization, teaching students how to establish relationships with Americans. Differences in adaptation were also noted according to geographic group.

A model of emotional and coping responses to problems in adaptation was presented and tested by Durhand Wong-Rieger (1984). According to this model, adaptation to movement across cultures involves three processes: 1) learning new social norms, 2) matching behavior to these norms, and 3) matching one's self-concept to the newly acquired behaviors and social norms. Various mismatches are created when the foreigner fails in one of these and each mismatch leads to an
affective response which is most effectively resolved by a unique coping strategy which would restore balance among the three components. Findings were shown to confirm the hypothesis, suggesting that the model "may serve as a framework for classifying diverse adaptation problems and for predicting the coping strategies which would effectively resolve these" (Wong-Rieger, 1984:153). Wong-Rieger suggest the need for systematic understanding of the types of problems encountered in different situations as well as the foreigner's interpretation of these and argues against orientation programs which simply teach survival skills.

William H. Dennis (1944) examines three distinct approaches to the development of programs for international students studying in the United States: 1) an organized well-worked-out system, 2) personal relations with no system, and 3) complete indifference. He proposes a basic counseling and guidance service whose basic organization begins with a counselor who functions as an information and action clearing person. The counselor would have complete files on each student and would see that students room with someone who does not speak his/her native language. A counseling committee, which could be chosen by and include international students, would work with the counselor. Other aspects of Dennis' proposed program include: a) instruction in customs and manners, b) allowing English to meet language requirements, c) encouragement in the classroom of student participation, d) encouraging students to speak to others about themselves and their country, e) opportunities for involvement in scientific and professional societies, and f) opportunities to participate in American life.

Larry N. and C. Joanne Garrett (1981) discussed the international student and academic advisement, arguing that there is a need to utilize university resources efficiently and to provide academic support services for international students. They noted that the international student is in a double-bind with little access to the decision-making process. Garrett and Garrett pointed out that planning and academic advisement have often been short term and that even though the need for academic advisement is increasing, resources are shrinking. English language deficiencies play a big
role in alienating the new student from the host educational system and environment. Garrett and Garrett warn that there is often a lack of a personal support system for the international student, thus, the university must help to fill this gap. "International scholars require a strong, viable, and workable academic program" (Garrett and Garrett, 1981:22-23). They go on to say:

Certainly they may require that faculty spend extra time with them on highly specialized and complex assignments, but they may also require indepth advisement about program of study requirements, the socio-cultural parameters of a particular research design, what to expect while engaged in an in-field practicum, and how to gain the most academically from an internship (Garrett and Garrett, 1981:23).

In 1975, at Iowa State University, Gretchen Bataille, a professor in the English Department, compiled a handbook to be used by members of a group called "Friends of Foreign Wives." Using the handbook, this group tutored spouses of international students. The handbook contained a series of lessons which began with such things as greetings and using the telephone and moved on to lessons regarding such activities as ordering food at a restaurant or obtaining cleaning aids and services. Additional information was included on verbal pairs, noun pairs, adjective and adverb pairs, abbreviations, and idioms. Conversation charts as well as a list of references that could be used to supplement the "lessons" were also included. The program centered on teaching skills, the emphasis in the approach was on relationships established between the international spouse and her American tutor.

In summary, a thorough understanding of the international student in the United States involves examination of many varied factors. The resultant information from such study should be used together in designing an educational experience tailored specifically for international students so as to meet as many of the identified needs as possible within the restraints of available resources.

In this section of the literature review, various general studies were cited which sought to identify the spectrum of problems or needs of international students in the United States. The most thorough of these was by Lee et al. (1981). Others included Brein and David (1971) and Clarke and
Ozawa (1970). In the latter, an individual case study was also presented to illustrate Clarke and Ozawa's findings. Wong-Rieger (1984) and Dennis (1944) both suggested the importance of a thorough understanding of the problems faced by international students. The former also noted a need to consider the foreign student’s interpretation of these problems.

An additional factor for study, length of stay and how this affects the types of problems experienced at a particular point in time, was presented by Day (1968). Wong-Rieger (1984) suggested that we look at emotional and coping responses in order to understand the international student while Graham (1983) discussed the role of acculturation as well as the role of cultural differences, not only between international students and the host culture, but also among the various cultures represented on any particular campus.

Both Fraser (1969) and Dennis (1979) encouraged us to take a global perspective in evaluating and planning educational programs in general and education programs for international students specifically.

The vital nature of communication in determining the success of the international student’s experience in the United States was considered and confirmed by Graham (1983), Dunnett (1977), and Dennis (1944). Colfer’s study of communication between "unequals" (1983) was relevant to the international student who also has unequal access to information pertinent to interpretation of communicative behavior.

In order to facilitate effective communication and, thus, a more positive self-image, English language proficiency programs were suggested by Graham (1983), Garrett and Garrett (1981), Lee et al. (1981), and Bataille (1975). Along with this, well-planned orientation programs were favored by Wong-Rieger (1984), Graham (1983), Lee et al. (1981), Dunnett (1977), and Dennis (1944). Bataille (1975) favored an extension of this to spouses of international students.

Sensitivity to cultural identity and differences in coping with the transition from one culture to another is important throughout the educational experience. This was confirmed by Graham (1983).
and Clarke and Ozawa (1970). Lee et al. (1981) suggested programs during the last year of study designed to address this situation prior to the student's re-entry into his native culture as well as programs upon arrival to the campus.

Additional suggestions, which are equally important, were made for inclusion in well-planned university programs for international students. Relevant work experiences and practical experience in the chosen field of study were advocated by Lee et al. (1981), Davis (1973), and Dennis (1944). Garrett and Garrett (1981) and Dennis (1944) reminded us that the counseling and guidance system provided is essential to a well-rounded program.

Communication

This review of literature regarding communication is divided into three sections: 1) The process of communicating, 2) cross-cultural communication, and 3) nonverbal communication. This is in no way an exhaustive review of the literature on communication. Such a review would be well beyond the scope of this thesis. Rather, it is an attempt to touch upon and explain some of the primary concerns in the study of communication in general and of nonverbal communication specifically. Particular attention is given to the section on nonverbal communication, defining the various classifications presented. It is the author's intent that this review will provide a basic understanding of the material discussed elsewhere in this thesis.

The process of communicating

According to Anthony Leeds (1976a:79-81), "Virtually all the animal kingdom communicates—that is, transfers messages from a sender to a receiver who may also be a sender." Leeds noted that although the forms of communication may vary considerably across phyla and species, all animals produce signals which involve the irritability of living cells. The signals that animals give off convey information regarding the sender's location, its state of being, its regulation to territory, and its location of resources.
Leeds pointed out that communication is of particular importance to social animals, such as the primates whose sociability is supported by communication. All higher primates share a basic set of "communicational means" which are quite similar across species and include: visual signaling, aural-oral message transfers, touch, and smell.

In speaking of human communication, Leeds declared its enormous complexity saying that, "humans, unlike almost all other animal species, use symbols as well as signs and signals to communicate" (1976b:84). These are often used either concurrently or interactively. Leeds expanded on this adding that, "all culture, including material objects, insofar as these encode messages from senders (their makers) to receivers (their users or observers), can be subsumed under human communication, though the latter includes messages that are not per se cultural (e.g., blushing)" (1976b:81).

In Speech Communication, William D. Brooks (1974) concentrated particularly on "man as a communicator," insisting that, his quality of life, as Brooks says is also the case with any organism, depends upon communication. He also discussed "presyllabic communication of animals" (Brooks, 1974:2), expounding on its amazing efficiency. He illustrates this particularly through a discussion of the importance of communication for insects, as well as other animals, in mating. In speaking of primate communication, he noted that the many excellent studies of same describe "communication systems that are elaborate in their establishment and maintenance of intragroup and intergroup relationships and modes of behavior" (Brooks, 1974:3).

When discussing human communication Brooks noted that:

...as in animal communication, the object is to live successfully. Regardless of the level of communication used or the sophistication of the communication system, its purpose is to enable organisms to adjust to their environments. Through effective communication one is more likely to live fully and wholesomely, but when one's communication skills and behaviors are unsatisfactory, the quality of his living deteriorates (Brooks, 1974:3).

Thus, Brooks breached the implications of effective communicative behavior for humans and
contends that the importance of same can be found in the consideration of communicative success in four areas: 1) personal, 2) social, 3) political, and 4) vocational.

In his discussion of the process of communication specifically, Brooks (1974:6) contended that, "one essential characteristic of communication is that the receiving organism, animal or man, responds. The message that gets no response is not a communication." He also noted that it is not necessary for the sender to intend to communicate for stimuli to be defined as communication. Thus, "any action or event, intentional or unintentional, can have communicative aspects as soon as it is perceived and responded to by an organism" (Brooks, 1974:6). Brooks, then, defined communication as the process by which meanings are exchanged and information sent and received.

Claud Shannon and Warren Weaver's model of communication, possibly the most widely used and most easily understood model, was presented by Brooks (1974:7-10). The model, originally devised to describe electronic communication, has certain limitations when applied to human communication, according to Brooks. Since the model is static and looks at the process at one point in time, it does not portray change or interaction. "Nevertheless," Brooks explained, "over the years the Shannon-Weaver model has become one of the most commonly used models in discussing the communication which occurs between human beings" (1974:7). According to the model, there are six components present in a communicative situation: 1) source, 2) transmitter, 3) signal, 4) receiver, 5) destination, and 6) noise (see Figure 1). Figure 2 shows an adaptation of the Shannon-Weaver Model which was presented by Brooks (1974:8). This adaptation is specific to speech communication. The human brain is presented as the source of all messages sent. The message, which is determined in part by feedback received from the senses, is sent via a chosen mechanism to the appropriate receiving mechanism in the "listener" and thus decoded and translated into meaning in the brain of the listener. The factor of "noise," or interferences, may occur at any point in the process and "may modify adversely or even totally change a message as it travels from source to destination" (Brooks, 1974:9). According to Brooks, both verbal and nonverbal messages are transmitted, as represented in
Figure 1. The Shannon-Weaver Model of Human Communication (In Brooks, 1974:7)
Figure 2. Adaptation of the Shannon-Weaver Model of Human Communication as presented by William D. Brooks (1974:8)
this adaptation of the Shannon-Weaver model. Feedback, also included in the adaptation and omitted in the Shannon-Weaver model, is "that integral part of the process of human communication that allows the speaker to monitor the process and to evaluate the success of his attempt to get the desired response from the receiver" (Brooks, 1974:9). There are limits in the adaptation, although Brooks contended that those elements found in Figure 2 exist in all types and levels of communication:

Not all important variables are represented in the model. Beliefs, attitudes, images, values, social roles, and experience are additional variables that determine what messages are constructed, how they are constructed, by what means they are sent, and to whom they are sent. The same variables operate in the receiver to determine what messages he selects, how he perceives them, interprets the, and reacts to them (Brooks, 1974:9).

Cross-cultural communication

In classifying communication, Brooks (1974) used four basic categories: 1) Intrapersonal Communication—that "which takes place within an individual" (Brooks, 1974:10); 2) Interpersonal Communication—that "in which persons are engaged directly with each other in the overt and covert transmission and reception of messages" (Brooks, 1974:10); 3) Public Communication—monological communication which is "characterized by the sending of a message to a public" (Brooks, 1974:10); and 4) Cross-Cultural Communication—communication across cultures or subcultures.

This fourth level is of particular interest to our study. In his examination of cross-cultural communication, Brooks (1974) considered three problem areas: 1) language, 2) values and beliefs, and 3) communication styles, procedures, and ways of thinking. He noted that "the world has become a single global village in terms of the radius of communication and the speed of communication" (Brooks, 1974:367). The frequency of our engagement in cross-cultural communication has increased tremendously, but we continue to be naive in our expectations of how to conquer problems that occur in such communication. "Cross-cultural communication difficulties are not simply a matter of different languages, but of different value systems, different thinking
systems, and different communication systems" (Brooks, 1974:367). He went on to suggest that we work toward a better understanding of differences when engaging in cross-cultural communication and also to discover values or styles of behaving that are common to both cultures, thus seeking to understand and learn from each other.

**Nonverbal communication**

Ashley Montagu and Floyd Matson, in *The Human Connection* (1979), explored the ways we communicate with each other, concentrating particularly on nonverbal communication. Some of the ways in which we communicate and thus indicate that we do or do not share a culture, as discussed by the authors, include: body language, gestures, facial expressions, tones of voice, use of personal space, clothes, rituals of approach, avoidance and greeting, looking and not looking, and touching and not touching. The breadth of Montagu and Matson's scope of human communication is even more evident in their examination of "communing" as "the way of dialogue," as well as loving and dancing as forms of communication.

A somewhat more traditional examination of nonverbal communication is found in Julius Fast's *Body Language* (1970). Although written in a much less prosaic manner, there are many parallels with Montagu and Matson's work discussed above. The topics explored by Fast include: kinesics; territoriality; proxemics; the invasion of space; the masks we wear; touch; the silent language of love; positions, points and postures; winking, blinking, and nodding; attempts at discovering an alphabet of movement; and the use and abuse of body language.

**Silent language** Montagu and Matson (1979) presented a discussion of one of the early and most comprehensive classifications of nonverbal or "silent language." This system, which Montagu suggested is still possibly the most useful system we have, was developed by Jurgen Ruesch and Wendel Kees and presented in 1956, in their work *Nonverbal Communication: Notes on the Visual*
Perception of Human Relations (in Montagu and Matson, 1979). According to this system, silent language is broken down into three categories: 1) sign language, 2) action language, and 3) object language.

Sign language probably was one of the earliest means of communication used by man. It "includes all those forms of codification in which numbers, punctuation, and words have been supplanted by gestures" (Brooks, 1974:157). Signs as simple as the hitchhiker's plea for a ride or as complex as American Sign Language all fall within this category.

"Action language includes all gestures, posture, facial expressions, and movements that are not used exclusively as substitutes for words" (Brooks, 1974:157). Montagu and Matson (1979) note that actions such as walking or drinking would be included because they not only serve to meet personal needs but also make a statement to those who view them. Brooks (1974) distinguishes two types of action language: 1) unintentional expressive actions, and 2) intentional purposive actions.

"Object language comprises all intentional and nonintentional display of material things, such as implements, machines, art objects, architectural structures, and--last but not least--the human body and whatever clothes or covers it" (Montagu and Matson, 1979:46). The written word, insofar as it is made of material substance, would also fall under the category of object language.

Studying the modes of communication In teaching linguistic anthropology at Iowa State, Dr. Norma Wolff utilized a model which organizes the many modes of human communicative behavior in a clear, functional system (see Figure 3). This model divides communicative behavior according to four modes: 1) visual, 2) spatial, 3) auditory, and 4) artifactual. The model also indicates the discipline and field of study under which each mode falls. We will consider each mode under its pertinent field of study.

Kinesics As a field of study, kinesics was pioneered by Ray L. Birdwhistell and refers to "the study of how body motion is used to communicate cultural messages as part of nonverbal communication: (Brandt, 1976:226). Birdwhistell distinguished three units of kinesics:
I. Visual mode
   A. non-gestural
      1. facial expressions
      2. gaze
   B. gestural
      1. head nods
      2. body gestures

II. Spatial orientations
   A. personal space
      1. postures
      2. bodily contact
      3. proximity
      4. orientation
   B. cultural space
      1. (ekistics), etc.

III. Auditory mode
   A. non-vocal
   B. vocal
      1. non-verbal
         a. paralanguage
         b. sound symbolism
      2. linguistic - language
         a. derived modes
            la. auditory
            lb. non-auditory

IV. Artifactual mode
   A. body oriented
      1. appearance
   B. symbolic sub-systems
      1. art
      2. music
      3. currency, etc.

Figure 3. Human Communication Behavior (as used by Dr. Norma Wolff, Iowa State University, in teaching anthropological linguistics, Anthropology 221)
Pre-kinesics deals with physiological, pre-communicational aspects of body motion. Micro-kinesics is concerned with the derivation of kines (least particles of isolatable body-motion) into manageable morphological classes. And social kinesics is concerned with the morphological constructs as they relate to communication (Birdwhistell, 1960:492-493).

Brandt (1976:226) noted, "The field of kinesics has provided a number of insights and corrected many misconceptions about body communication." She reported, for example, that Birdwhistell had determined that "there are no universal body motions, facial expressions, or gestures which provoke the same response" (Brandt, 1976:226). Rather, these forms of nonverbal communication are interpreted within the context of the particular culture in which they are being used.

According to Harrison (1968:478), Birdwhistell estimated that "in a normal two-person conversation, whereas 35% of the social meaning of the situation is carried verbally, the remaining 65% is transmitted nonverbally." Much of this nonverbal communication is transmitted via the eyes. In his chapter, "Winking, Blinking and Nods," Julius Fast (1970) discussed how we communicate with our eyes, how we can learn to read them, and how culturally relevant eye movements are.

Proxemics Hall and Hall (1971) wrote extensively on the sense of territoriality and use of space which is a very basic difference between people of differing ethnic groups. They identified four basic zones which govern a person's use of space: 1) personal "bubble," 2) personal zone, 3) social zone, and 4) public zone.

Of the "bubble" they write:
...everyone has around him an invisible bubble of space that contracts and expands depending on several factors: his emotional state, the activity he is performing at the time and his cultural background. This bubble is a kind of mobile territory that he will defend against intrusion. If he is accustomed to close personal distance between himself and others, his bubble will be smaller than that of someone who is accustomed to greater personal distance. People of North European heritage--English, Scandinavian, Swiss and German--tend to avoid contact. Those whose heritage is Italian, French, Spanish, Russian, Latin American or Middle Eastern like close personal contact (Hall and Hall, 1971:463).
The second zone, personal distance, is divided into two phases. The close phase, 1 1/2 - 2 feet for Americans, is an intimate phase, in which spouses and sexual partners are generally the only ones allowed.

The third zone, social distance, is generally used for business transactions and dealing with service providers. Here, too, is a close phase, 4 - 7 feet, used for talking with colleagues at work and conversation at social gatherings. The far phase, 7 - 12 feet, lends a formal air to business or social interactions.

The fourth phase, public distance, is reserved for teachers and public speakers. Important public figures are generally kept at the far phase of 25 feet and beyond.

Touch; the use of physical objects to separate people, such as a desk or podium; and the manipulation of auditory space, as Hall and Hall (1971) noted in their article, are also included under proximity. In his article "Space Speaks" (1959), E. T. Hall examined the concept of territoriality and how space is treated within various cultures. His discussion included many concepts of space and territoriality which are generally overlooked.

Fast (1970) discussed the invasion and defense of space. Recognizing the significance of special relationships which can impart or define status, rank and dominance, he explored not only how space is invaded but also how we defend it.

Growing out of the distinctions ethologists make between "contact" and "no contact" species of animals, Montagu and Matson (1979) discussed the concept of "contact" and "noncontact" cultures and subcultures. "Contact" cultures include Latin Americans, Arabs and southern Europeans. "Noncontact" cultures include Asians, Indians, Pakistanis, northern Europeans, and Americans. "Members of a 'contact' culture or subculture generally touch each other more, face one another more often, interact more closely, and speak more loudly than is characteristic of the members of a 'noncontact' group" (Montagu and Matson, 1979:8).
E. T. Hall (1959) pointed out that variations in the use of space cause us to react strongly when we visit other cultures. Even though we learn thousands of spatial cues, we do not look at space isolated from other cues. So the feelings triggered by these cues are often attributed to other things. Nevertheless, even though it is seldom brought to our consciousness, space does communicate.

Ekistics

The study of the cultural use of space is called ekistics. It is an outgrowth of proxemics and a very new area of study. Hall (1959) offers examples of how cultures use space:

Several years ago a magazine published a map of the United States as the average New Yorker sees it. The details of New York were quite clear and the suburbs of the north were also accurately shown. Hollywood appeared in some detail while the space between New York and Hollywood was almost a total blank. Places like Phoenix, Albuquerque, the Grand Canyon, and Taos, New Mexico, were all crowded into a hopeless jumble (Hall, 1959:519).

Another example can be found in comparing roads as they are named in France and contrast with those in the United States. In France, Hall (1959:521) tells us "Street names shift as one progresses. Take Rue St.-Honore, for example, which becomes Rue du Fauborg St.-Honore, Avenue des Ternes, and Avenue du Roule." As one progresses past certain famous Parisienne landmarks, the name of the street changes. Although street names may also change in certain areas of the United States, the purpose of change in France is quite different. Street names serve, in France, to call attention to famous landmarks, persons and events.

Psychologist Fred C. Feitler and two fellow researchers at the Southern Tier Regional Educational Center in Horseheads, New York, questioned 276 graduate and undergraduate students regarding their feelings about seven different arrangements of teacher and student desks. They theorized "that the choices relate to a person's need to be controlled by or to control others" (Psychology Today, 1971:544-546). In reviewing their results, they concluded that comfort with the seating arrangement as determined by sufficient teacher contact upon opportunity for interaction was preferred by these American students.
Paralinguistics Paralinguistics is defined by Montagu and Matson (1979:x-xi) as "the study of human communicative sounds as tone of voice, hesitation, snickers, groans, sighs, belches, drawling and clipped speech—sounds that convey the speaker's emotional or subjective stance or a culturally defined message (such as) clearing the throat." Paralanguage, or vocal nonverbal communications, includes vocal modifiers, vocal differentiators, vocal identifiers, and voice quality, according to Brooks (1974). Vocal qualifiers are often referred to as "tones of voice" and include the variation of loudness and softness, raised or lowered pitch, spread register and squeezed register (the lengthening or shortening of the time interval between the pitches as one speaks), rasp or openness, drawling or clipping, and tempo. Vocal differentiators include crying, laughing, and breaking (speaking in broken, halting voice or some rigid and intermittent interruption of speaking—i.e., the nervous giggle). Brooks (1974:156) noted, "Custom may dictate who can cry and who cannot cry, how much they can cry, and what things can be meant by crying." Vocal identifiers include such vocal cues as "uh-huh" and "ah-hah" referring to yes and "huh-uh" and "ah!-ah!" for no.

Finally, vocal quality is the general characteristic found in general emotional states as exhibited in the anxious voice, the calm voice, the hostile voice and others. Vocal quality is used particularly by psychiatrists, medical doctors and others in interpreting messages. Brooks (1974:156) told us that the phenomena of voice qualifiers are "not yet researched fully so as to describe them systematically as is done for vocal qualifiers, vocal differentiators, and vocal identifiers."

Linguistics Linguistics is the study of both auditory and nonauditory verbal language. The discipline, according to Hunter and Whitten (1976:250) is divided into two categories: 1) historical linguistics "concerned with the evolution of languages and language groups through time and with reconstructing extinct proto-languages from which historically known languages differentiated" and 2) descriptive linguistics which "focuses attention on recording, transcribing, and analyzing the structures of languages distributed across the world today."
Anthropological linguistics focuses on the establishment of evolutionary relationships between language systems of animal communication as well as on the attempts to understand the many social functions of human linguistic behavior. The following topics are included under anthropological linguistics: a) human language and animal communication, b) language universals, c) language and world view, d) language classification, e) writing systems (which in our classification of communicative modes falls under the artificial mode as a symbolic subsystem), and f) language in society (Hunter and Whitten, 1976:250).

Cultural anthropology and the artificial mode

An artifact is "any object manufactured, modified, or used by human beings as an expression of their cultural values and norms" (Hunter and Whitten, 1976:46). Artifacts, therefore, communicate to the viewer or the user some message from the maker. They also can be manipulated by the user to convey some other message to another viewer or user. Although not the only phenomena studied by the cultural anthropologist, artifacts and the meaning they convey do fall within the realm of cultural anthropology. This category encompasses Ruesch and Kees' concept of "object language" as described previously in this paper.

Studies under the guise of other disciplines (e.g., psychology) have also contributed a great deal to our understanding of the artificial mode. N. Compton's study reported in the Journal of Psychology (1944) showed the affect of wearing glasses on others' perception of an individual's intelligence and industriousness.

Skill in communication

"Through effective communication one is more likely to live fully and wholesomely, but when one's communication skills and behaviors are unsatisfactory, the quality of his living deteriorates" (Brooks, 1974:3). Brooks discussed four areas of life for which effective communication skills are vital for success: a) personal, b) social, c) political, and d) vocational.

Howard S. Friedman (1979) explored the concept of skill in nonverbal communication and its implications for understanding social interaction. He noted that it has only been within the last two
decades that the concepts and findings of systematic and scientific study of nonverbal communication as an important personal skill has been applied to the study of social behavior. Once nonverbal communication was recognized as being made up of specific behaviors which can be isolated and studied, the idea that individuals could possess varying degrees of skill in communicating nonverbally developed. As more study progressed, a shift occurred in the study of social interaction from the cognitive content toward the affective component. A second shift in orientation took the focus of research "away from motives and traits and towards abilities as explanatory constructs in analyzing social behavior" (Friedman, 1979:3). The third shift noted by Friedman was toward more attention to the ongoing process of social interaction. Friedman described the current approach as follows:

At the core of this approach is careful measurement of the nonverbal cues--facial expressions, voice tones, body movements and gestures--that are expressed and detected (sent and received) by various interactants in various social situations (Friedman, 1979:4).

Along with the concept of skill in verbal communication, Friedman told us, is the notion that this skill can be measured. A measure of social ability rather than personality profiles thus emerges as we attempt to understand human interaction.

Friedman warned of the dangers of the skill approach. Cultural differences will affect the viability of any measure just as it does in the measure of IQ. Sex differences such as the observed female superiority in certain nonverbal skills have begun to emerge. It is still, however, unclear as to whether there is a biological basis to this or if it is attributable to socialization factors.

According to Friedman, research has focused on process, measured by what "people can and cannot send to each other through various channels rather than with what people think about their social situation" (1979:22). Friedman considered the implications of such research on theory based on the concept of social skill in nonverbal communication. He believed that theory becomes more aligned with actual life occurrences when it is focused on tangible observations and is linked to
specific groups and situations in order to avoid over-generalizations in light of differences in skill level because of such variables as sex and culture. It is then more likely to yield tables and correlations.

One approach, which has grown out of decoding research, focuses "primarily on individual differences in nonverbal behavior and secondarily on regularities across people or groups" (Rosenthal et al., 1979:3). It deals with differences in judging the meaning of nonverbal expressions. The PONS (Profile of Nonverbal Sensitivity) Test has been an outgrowth of a seven-year program of research at Johns Hopkins University on the assessment of nonverbal cues conveyed by the face, body and voice tone channels. The PONS Test presents nonverbal behavior in eleven different channels and includes segments on a wide variety of expressions. Consisting of a forty-five minute black and white 16 mm film and soundtrack, the test requires a participant to view the film and circle the label that correctly identifies the segment.

Two effects that have been studied and which are of particular interest for our own research are gender and cultural variation. Females were found to have a reliable advantage over males in assessing nonverbal behavior. Results of PONS cross-cultural studies suggest that there is a wide variation in the degree to which persons from other cultures could interpret the nonverbal behavior of Americans. In a sample of 2,300 representing 20 countries it was determined that variation was nonrandom. "The cultures best able to decode the PONS film were those most similar to or most closely associated with American culture" (Rosenthal, et al. 1979:211). It should also, however, be noted that "even the lowest scoring sample performed at better than the chance level" (Rosenthal, et al. 1979:216).

Judith A. Hall (1979) summarized research on gender, gender roles, and nonverbal skills. Several hypothesis were presented as to why females tend to develop habits of paying close attention to others' cues. The hypothesis that the females' advantage stems from their greater empathy, a trait which has been substantiated, was inconclusive. The hypothesis that gender differences are due to
aspects of personality that are related to gender roles was not supported either. The concept that women's superior decoding skills are due to a need to possess good judgement in nonverbal skills in order to "save their skins," the responding-to-oppression approach, was also not supported. Another hypothesis that was generated, but not yet tested, suggested that "perhaps women are most accurate at decoding the gender that is most important to them in terms of their own history or values" (Hall, 1979:58).

Rosenthal and DePaulo (1979) performed tests in part to determine whether female superiority was consistent across channels. Five measures of sensitivity were derived using the PONS test: 1) face, 2) body, 3) tone, 4) brief exposures, and 5) discrepancies. The order of the measures represented, in descending order, the amount of "leakiness" hypothesized for each channel, with "face" being the least leaky channel. The results of three separate studies conducted suggested that women are more "polite" in their nonverbal interactions than are men, that they are more guarded in reading cues senders are trying to hide, and that women who are less accommodating in this way are seen as having less successful interpersonal outcomes. The pattern of accommodating seems "consistent with the traditional sex role ascribed to women in our culture, a sex role that is only now beginning to change" (Rosenthal and DePaulo, 1979:98). Cross-cultural research seemed to validate this.
THEORETICAL ORIENTATION

As was discussed previously in the literature review under "The Process of Communicating," Shannon and Weaver have provided us with a model of communication used originally to describe electronic communication. This model has limitations when applied to human communicative behavior. Brooks' adaptation of the model worked to eliminate some of the limitations of the Shannon and Weaver model. The human brain was presented as the source of messages sent and the phenomena of feedback and noise were introduced into the model.

As Brooks (1974) noted, however, beliefs, attitudes, images, values, social roles and experiences are additional variables that influence the message that is sent. These variables also influence what portion of the message the receiver filters out as well as how the message is perceived, interpreted and reacted upon.

In order to expand our view of communication, the model presented in this paper was developed. This model is also adjusted for adaptability in considering cross-cultural communication.

According to this model, culture is seen as the set of values, beliefs, rules, and mores shared by a particular group of people. This set which combines and is defined as culture can also be thought of as a huge data base used to interpret messages received and sent by members who, to varying degrees, share the particular culture. The term "culture" may also be used to refer collectively to the group who shares this data base.

An individual's culture is tempered by those factors that make up his/her personality. (See Figure 4.) In its transmission to the individual, culture is contaminated by noise from the environment and, thus, to some extent, what is absorbed is a distortion of the culture. This form of culture is manifest through the individual's behavior. The receiver's reaction is translated into behavior which is communicated back to the original sender. A filtering process occurs between the
Figure 4. Factors which combine to create an individual's total database
time the message is sent and the time it is received. The message is also contaminated by "noise" from the environment so that the information sent is not an exact copy of the original idea. (See Figure 5.)

To the extent to which the data base of the receiver of a message agrees with that of the sender, the message will be retranslated and subsequently understood. The receiver will know his/her message has been translated properly when the receiver's resulting behavior matches the set of appropriate responses as defined by the sender's culture. It should also be noted that that unique data base which an individual carries with him/her is actually a combination not only of the individual's culture but also of his/her unique constitutional, biological, psychodynamic, neurological, and genetic makeup along with additional data accumulated from previous experiences (messages received). (See Figure 4.)

An individual's data base, then, is at the root of differences experienced consciously or unconsciously by a member of one culture when interacting with a member of another (or in fact between any two individuals regardless of their cultural backgrounds). I say "consciously or unconsciously" because often the extent to which a message is decoded erroneously is not evident to the sender since the response returned may, in fact, be part of those accepted responses, or at least appear to be on the surface, but may actually carry a different message when translated according to the receiver's culture rather than that of the sender. The response sent back to the original sender may also contain subtle codes, such as pupil dilation, flushing of the skin, or voice quality, to which the sender reacts subconsciously but has not been conditioned to cue into consciously by his/her culture.
Figure 5. Model of cross-cultural communication
METHODOLOGY

This section provides a discussion of the methodology used in the collection and analysis of data concerning potential problem areas in intercultural communication and the utilization of these data for a handbook/workbook written for international students at Iowa State University. Even though this thesis covers primarily the analysis and data utilization phases of the project, some discussion of methodology regarding sampling procedures and data collection have also been included. Following this are sections on composition and coding of the data form, reliability, statistical analysis, and limitations.

The Sampling Procedure

The sample for this study was drawn from a loosely defined population of international students attending Iowa State during five academic class periods from spring, 1980, through summer, 1982. Data were collected by students enrolled in Anthropology 218, a general course on cultural anthropology which was taught during this time primarily by Dr. Norma Wolff, as part of a regular class assignment. A review of written comments by student interviewers regarding the experience disclosed that a few of the informants were on campus at the time of the interviews but may not have been actually enrolled as university students.

Table 1 shows a breakdown by quarter/semester (labeled "Class") in which data were sought and the number of situations involving miscommunications collected and recorded by each class. Also included are the professor teaching the lecture section of the class as well as the teaching assistant(s) for the laboratory sections.
Table 1. Sample breakdown by class

<table>
<thead>
<tr>
<th>Anthropology 218 Class Schedule</th>
<th>Number of &quot;Situations&quot; Collected</th>
<th>Professor</th>
<th>Teaching Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring, 1980</td>
<td>39</td>
<td>Dr. N. Wolff</td>
<td>C. Cruikshank and M. Sibley</td>
</tr>
<tr>
<td>Fall, 1980</td>
<td>35</td>
<td>Dr. N. Wolff</td>
<td>C. Halwani</td>
</tr>
<tr>
<td>Spring, 1981</td>
<td>50</td>
<td>Dr. S. Huang</td>
<td>C. Halwani</td>
</tr>
<tr>
<td>Spring, 1982</td>
<td>16</td>
<td>Dr. S. Huang</td>
<td>C. Bakken</td>
</tr>
<tr>
<td>Summer, 1982</td>
<td>5</td>
<td>Dr. H. Schuster</td>
<td>(No teaching assistant, sessions conducted by Dr. Schuster)</td>
</tr>
</tbody>
</table>

The total number of situations regarding "miscommunications" recorded was 145. These were collected from 106 informants. It should be noted that 17 informants provided more than one situation, which accounts for the greater number of situations included in the study. Examples which involved miscommunication due to semantics were eventually excluded since they did not meet the criteria listed in the original interview schedule. (See Appendix A for a sample of the interview schedule and directions for data collection.) These excluded samples will be discussed further under "Findings."
Data Collection

As has been previously noted, this thesis is a retrospective study covering the analysis and proposed utilization of data collected previously under the direction of Dr. Wolff. Descriptions regarding how data were collected are also included in order to provide information on which an assessment of reliability of those data may be based.

Students enrolled in Anthropology 218, Cultural Anthropology, during the specified collection period were expected to complete a series of mini-projects in order to meet requirements for the class. Each project provided practice in specified research skills taught as part of the laboratory sessions. The final project assigned was "A Project in Applied Anthropology" and focused on "miscommunications" between international students at Iowa State and ISU /Ames community members. The situations collected were expected to involve nonverbal behavior rather than miscommunication due to semantics. The data collected as this final project were used in this study.

Students were provided with a project outline which explained the purpose of the project and the methodology to be used. (See Appendix A.) Verbal instructions were also given. Those supervising data collection for each academic session were careful to be consistent in providing direction for the assignment. The project was considered "applied" because the data collected would be used in writing a handbook/workbook to be distributed to international students at Iowa State. Thus, the data were collected to meet a specific need rather than for purely research purposes.

Those students collecting data were predominantly female. There were ninety-eight situations collected by females, thirty-six by males, and eleven for which the sex of the interviewer was not available.
Location of the interviews was determined by the interviewer and informant. The majority, eighty-nine, were conducted on campus while thirty-two were conducted off campus in the Ames area. One was conducted over the phone; another was conducted outside of Ames in another Iowa town; and there were twenty-two for which locations were unknown.

Student interviewers were told to seek out a willing Iowa State international student (informant) and ask him/her to tell them about an embarrassing incident resulting from miscommunication in which the student had found him/herself. The miscommunication was not to be due to mistakes in use or understanding of the verbal language but rather to mistakes in some other aspect of communication (i.e., nonverbal). The interviewer was expected to assign the informant a case number in order to maintain anonymity, and record his/her age, sex, and nationality. He/she was also instructed to record the location of the interview, a brief description of the situation, an explanation of the American cultural rule broken, and the informant’s cultural rule which was followed instead. Interviewers also were asked to include any personal comments they may have had regarding their own feelings and impressions about the experience. Most of these comments related the difficulty students had in locating an informant. One student said that he felt that his friendship with the informant had been jeopardized because he had pried into personal experiences, thus creating discomfort for himself and the informant. Many of the students, however, remarked that the experience was very informative and that it helped them understand their international friends better. All data were to be recorded on note cards and turned in during the lab session the week after the assignment was given.

Developing a Taxonomy of Communicative Behavior

In exploring the process of developing taxonomies of social situation, Norman Frederiksen (1972:115-116) noted, "We need a systematic way of conceptualizing the domain of situations and situational variables before we can make rapid progress in studying the role of situations in determining behavior." He goes on to say, "Any classification system is to some degree arbitrary."
Determining a meaningful taxonomy, which would reflect the communicative behaviors involved in the incidents of miscommunication analyzed in this study, proved to be a major portion of the writer's role in this project. The task was complicated by the broad range of situations and communicative behavior reported by informants.

Merton Krause (1970) suggests two means by which an investigator can acquire a situational basis for his/her research use: 1) discover an appropriate natural situation to "penetrate and adapt;" or 2) invent one to construct and maintain. In reviewing our data, natural situations which could be used for classification gradually became evident. Because this is a retrospective study, Krause's approach of "penetrating and adapting" natural situations actually consisted of discovering natural situations within the data already collected, penetrating them and subsequently decoding them.

Decoding proceeded along four avenues: 1) recording identifying information regarding the particular situation (i.e., case number, etc.), 2) identifying the demographic data pertaining to the informant, 3) classifying information according to forms of interaction within social environments which appeared to have been present, and 4) cataloging forms of communicative behavior occurring in the interaction.

Early attempts at cataloging interactions included rather broad categories of problem situations rather than the four levels of variables listed above. The main emphasis then was on teasing out a taxonomy of situations only. Keeping in mind Frederiksen's statement, "Any classification system is to some degree arbitrary" (1972:116), the search for a more useful taxonomy proceeded. Broad general categories such as "eating," "greetings," or "visitations," emerged as more and more situations were examined. Communicative behaviors at that point had been ignored until after it was decided that broad classifications were not sufficient to describe the data.

The basic procedure for taxonomic development continued to follow Frederiksen's approach (1972). All possible combinations of attributes were considered. Resources from several disciplines were consulted in the search for a system of classification extensive enough to provide meaningful information yet general enough so that coding could be accomplished while maintaining as high a rate
of reliability as possible. When this was accomplished, statistical methods were applied to determine how variables from all four levels (identification, demography, interaction and environment, and communicative behaviors), related to each other. A discussion of statistical methods used is included in the subsection entitled "Statistical Analysis."

The data form itself is divided into four major sections. The first section includes all identifying information such as case and informant numbers, as well as information regarding the interviewer. The second section is a summary of demographic information regarding the informant. The third is a classification of communicative behavior that occurred in the interaction and was reported by the interviewer. It was perceived, after coding the situations, that this profile only provided a partial picture of what actually occurred since Section IV, Communicative Behavior, was only reported by the interviewers in general terms, often excluding such factors as gaze, tone, pitch, or body posture. Appendix B is a sample data form used for coding the data in this study. A more detailed discussion of each section follows.

Miscommunications Data Form

Following is a discussion of items included in the data form used in coding data for this study. Discussion follows the format of the form itself. A sample data form may be found in Appendix B.

Identifying information

Case numbers and informant numbers were assigned consecutively as the data forms were coded. It is already noted that several informants reported two or more situations to the interviewer. All situations reported were included regardless of whether they met the criteria regarding exclusion of miscommunication due to verbal aspects of the situation. Only Part I was coded for those which did not follow this aspect of the directions regarding data collection. These were maintained in the sample, however, in order to evaluate the randomness of the overall sample and thus the validity of the method of sampling used in this study.
Information regarding the interviewer was also included to generate a general profile of the interviewers. The information regarding the interviewer included: a) sex and b) academic class attended. The latter refers to the quarter/semester and year in which the interviewer took Anthropology 218. It was hypothesized that this variable might be used to measure any bias within classes due to different topics discussed, to the way instructions were given, or some other cohort effect.

**Demographic data**

Information collected regarding the informant included: a) age at the time of the interview, b) sex, and c) nationality. The literature shows these to be important variables for consideration when studying behavior, particularly in cross-cultural studies and studies of communicative behavior (Lee et al. 1981).

It was noted whether the informant was recently arrived in the United States or to the Iowa State campus rather than being here for more than six months. As Lee et al. (1981:16) report in their literature review, Lozada and Gabriel have confirmed that, "With regard to problems with English, ...foreign students experience English difficulties during the first year and... the difficulties decreased after one year." Lee et al. go on to cite studies which link length of study in the United States with social difficulties, food adaptation, successful adjustment, knowledge of legal rights and civil regulations, and satisfaction with American education. They report further, however, that there is disagreement regarding total number of problems and length of stay. In regard to likelihood to return home, they report that there is a negative correlation with length of stay. From my own observations, I have noted that the international student may begin to experience nonverbal miscommunications, particularly regarding such subtleties as paralanguage, after being in the United States for a number of years. This may be due to an increased identification as part of the community and thus an increased
expectation by others of conformity to group norms or, possibly, to an increased awareness and self-consciousness regarding the subtle aspects of communication on our sojourner's part. This, however, is a topic which would require further research.

**Forms of interaction within social environments**

This section of the data form is an attempt to classify the situation reported in regard to the various social events occurring during the course of each situation. Social interactions were divided into five main groupings: A) informant role, B) types of behavior, C) presentation of self, D) forming and maintaining relationships, and E) profile of person(s) other than informant involved in the interaction.

**Informant role** Classification of the informant's role according to the dichotomy "respondent" versus "initiator" was included in order to clarify how the "miscommunication" was started. If the informant was a respondent, his/her communicative behavior would be a reaction to some event in his/her environment. On the other hand, as initiator, the one who started the communicative sequence reported, the informant would be acting more spontaneously and the communicative behavior would be more directly an expression of self.

**Types of behavior** In order to classify the miscommunication situation in terms of types of behaviors exhibited, with emphasis on motivation, the following dichotomies were included: 1) inquisitive versus display and 2) goal oriented versus leisure.

"Inquisitive behavior" refers to that which is motivated by the need for affirmation or information. It is questioning behavior. This is contrasted with "display behavior," which involves the performance of some action rather than the search for information. In other words, display behavior is doing or being.

In our second dichotomy, "goal oriented" refers to that which seeks to accomplish a particular task. It is contrasted with "leisure." Although some leisure activity could be seen as also being goal oriented, in this study it is being defined in its broadest sense to include any free time activities
performed and characterized by freedom from time-consuming duties, responsibilities, or activities. It was speculated that during their leisure activities, our international students would tend to relax, to be less formal and less guarded, thus increasing the chances for miscommunication. Whereas during classtime or some other goal or task oriented behavior the students' attention to effective communication would be high, thus increasing the tendency for making fewer mistakes.

**Presentation of self**  This subsection contrasts with "forming and maintaining relationships." In coding, a particular situation might fall under (C) or (D) on the coding sheet or both; however, it must fall under at least one of these categories. It is possible that several social events may have taken place in the frame of the situation reported, thus all events that apply should be checked.

The subsection "presentation of self" was taken from Goffman's work (1959; 1967) in which he constructed the strategies and styles employed by each individual in the process of getting through daily life. Self-presentations are ways in which the individual attempts to present his/her best "face" or expressions of self to others in order to control or manage their responses to him/her. Many of the events under this category were taken from Goffman's work. Those that were not will be noted.

**Intrusion**  This refers to the inappropriate crossing of territorial boundaries without permission. The concept is borrowed from Goffman (1959). It can also be paraphrased as the invasion of another's "space."

**Proximity**  This refers to culturally-defined space. Space is defined by the individual, along with the social group, and is culturally patterned. Relating to the concept of territoriality, proximity refers to the range within which various classes of individuals, groups, or property of individuals or groups are permitted to approach the defining individual, group, persons significant to the individual or group, or property significant to the individual or group. The concept as it relates to communication has been studied extensively by Edward T. Hall (Hall, 1959; Hall and Hall, 1971; Hall, 1976).
Presentation of self  This is much as described above. Here, however, "presentation of self" refers to specific attempts to manage or affect how others view the informant or, in other words, to manipulate the impression others have of the informant as a person.

Preparatory rites/grooming  Here I refer to any activity relating to cleansing, caring for, covering, or decorating the body.

Adornment  Referring specifically to covering and decorating the body, this category includes clothing, jewelry, accessories, make-up, and so forth.

Structuring the physical environment  This is a tangible public expression of self and includes the choice and arrangement of objects within the environment. It was derived from the data as well as from literature on communicative behavior. Because this behavior is an important part of the social environment, it has been included here, under "forms of interaction within social environments."

Saving face of self  This was taken specifically from Goffman's *Interaction Ritual* (1967) and refers here to attempts to regain or keep from losing a favorable impression of self as projected to others.

Eating  This is another event which was reported several times in the data and could not be adequately identified elsewhere. It was seen as a presentation of self where the individual projects a particular image through the use of behavior determined primarily by culture, personality peculiarities, and the individual's affective state at the time of the event.

Other  This final category includes any events that are clearly attempts to present a particular image of self but which do not fit any of the above.

Forming and maintaining relationships  Contrasting with "presentation of self," "forming and maintaining relationships" defines those actions and motivations involved in an interaction that in
some way promotes, defines, or limits the interpersonal relationship between the actors involved. Included are traditional classifications used to define interactions, some of which are drawn from Goffman's work (1959, 1967) as well as from Morris' work on intimacy (1971).

**Greeting**

Greeting, a traditional classification of communicative behavior, is defined in Webster (1984:548) as "a gesture or word of salutation or welcome." Salutation is likewise defined in Webster as "an expression of greeting or goodwill" (1984:1034). As used in this study, all such behaviors, including those used upon ending an interaction would come under this variable.

**Getting acquainted**

Included here are those behaviors performed in order to get to know a person or group recently met. This behavior marks the beginning of the formation of some sort of relationship. Such behaviors are generally not as formalized as greetings and tend to be more spontaneous; however, there are limitations on the type and degree of interaction accepted.

**Friendship**

Friendship is defined in Webster (1984:507) as the relationship one has with a person: a) "whom one knows, likes, or trusts;" b) with "whom one is allied in a common struggle or cause;" or c) who is a "supporter, sympathizer, or patron of a group, cause, or movement." Included under "friendship" are those behaviors performed to promote, define, or limit an existing friendship.

**Courtship**

This term is defined in this study to include those behaviors performed with the intention of winning the favor of a member of the opposite sex. Any dating behavior or attempts to engage a member of the opposite sex in an interaction in order to become better acquainted were included.

**Intimacy**

Morris states, "To be intimate means to be close...the act of intimacy occurs whenever two individuals come into bodily contact" (1971:9). It is Morris' concept that is referred to here. Intimacy may be same sex or opposite sex contact and is not a reflection on the depth of the relationship but rather is the use of touch to promote, define, or limit it.
Showing respect for others. This category includes those acts performed intentionally by the informant to show consideration, appreciation, or deference to another. The concept is an adaptation of Goffman’s concept of “saving face” for others as well as the traditional concept of respect in relationships.

Other(s) showing respect for informant. These are acts as defined above, performed by individuals interacting with the informant out of respect for the informant.

Saving face of other(s). For a definition of “saving face” see “saving face of self” above. “Saving face of others” refers specifically to attempts by the informant to save face for another individual or group of individuals involved in the interaction.

Showing disapproval. This category was drawn from the data and refers to behavior performed by the individual in order to show his/her unfavorable opinion of or disapproval of some behavior(s) emitted by others involved in the interaction.

Other. Similar to the same category under “presentation of self” above, “other” includes any events that are clearly attempts to form or maintain relationships but which do not fit into any of the above categories.

Profile of person(s) other than informant involved in the interaction. Information is recorded here in order to produce a profile of the person(s) involved in the interaction in question. This refers specifically to those directly involved but not to the informant. The profile represents seven categories of information as described below. Since more than one individual was often involved, it is possible that more than one description may be checked within a particular category. If no information is available regarding a specific category that section is left blank. This occurred in many cases, since this analysis was part of a retrospective study and the variables were defined after the data were collected.

In coding the situations, it was found that behavior often occurred in public and that a secondary interaction group of either actual or potential observers was involved. The variable “public
behavior/secondary interaction group" is to be checked whenever behavior is public and/or it is known that a secondary group of potential observers are present.

It was also noted in coding that in some situations, communication occurred without overt interaction between the informant and a primary interactional group. The variable "no primary or secondary interaction group" is used to account for this.

The next four variables classify participants according to their status in relationship to the university. These include: 1) other foreign student(s), 2) American student(s), 3) faculty/administrators/university staff, and 4) other community members(s).

Next, classification is made according to how many people are involved in the interaction, not including the informant. Categories are: 1) one person, 2) two people, 3) three people, 4) four to ten people, and 4) more than ten people.

It was noted whether or not the informant knows those individuals involved in the interaction. The following two categories are used: 1) person(s) informant knows and 2) person(s) informant does not know.

Age in relation to the informant is noted. Rather than make assumptions about age, this category was often left blank unless specific information regarding age was provided. Categories here are: 1) person(s) of same age, 2) older person(s), and 3) younger person(s).

The relationship to the informant of those involved is included. Following are the six variables used to define this followed by an explanation of each variable.

1. Stranger(s): person or persons the informant does not know and is not introduced to in the interaction in question.

2. Person(s) providing a service to informant: added in response to the data, this classification includes clerks, waitresses, teachers, and so forth.

3. Acquaintance(s): person or persons informant has met previously but has not as of yet formed a relationship with or someone he/she meets in the context of the situation described.
4. Friend(s): those with whom the informant is acquainted and has interacted with enough to form some sort of relationship, excluding that of relative or intimate.

5. Relative(s): those related by blood or marriage to the informant.

6. Intimate(s): boyfriends, girlfriends or sexual partners other than relatives.

Forms of communicative behavior

This section of the data form is divided into two primary groupings: A) forms of "silent" language used and B) mode(s) of communicative behavior used. At least one form or mode is to be checked in each of these two groupings.

Forms of silent language used

An early approach to classifying communicative behavior, as developed by Jurgen Ruesch and Wendell Kees and as reported by Montagu and Matson (1979:46), this system provides a general breakdown for "silent" or nonauditory modes of communication. Included are three forms of silent language. For a more in-depth discussion see "Communication" in the literature review.

Sign language

Sign language "includes all those forms of codification in which numbers, punctuation, and words have been supplanted by gestures" (Brooks, 1974:157).

Action language

Action language "includes all gestures, facial expressions, and movements that are not used exclusively as substitutes for words" (Brooks, 1974:157).

Object language

"The display of material things--art objects, clothes, the decoration of a room, hairstyle, implements, machines, and the human body" (Brooks, 1974:165-166) are all forms of object language.

Modes of communicative behavior used

This classification system for modes of communicative behavior was borrowed from Dr. Norma Wolff, Associate Professor of Anthropology at Iowa State. She used it in teaching Anthropology 221, Linguistic Anthropology. It is a two-step classification system which first divides communicative behavior into four primary modes of receipt and then breaks down each mode into subcategories describing the behavior or
Visual mode kinesics. In the visual mode, messages are received visually; they can be seen. Included are body motions "used to communicate cultural messages as part of nonverbal communications" (Brandt 1976:226). Behaviors included under this mode are the following:

a. **Facial expression**: "The most readily observed of all gestures" (Brooks, 1974:160), this includes facial aspects which convey feeling or meaning.

b. **Gaze**: Eye contact, or the lack of it, as well as the variance of length of contact and focus.

c. **Head nod (gestural)**: Movement of the head in such a way so as to convey meaning or feelings.

d. **Body gestures**: Body movements used to convey meaning or feelings. Movements of the head are not included here.

Spatial orientation (proxemics). Proxemics included all messages transmitted through the manipulation of space. Manipulation of people and objects in space are also subsumed under this heading. Following are subcategories of this mode:

a. **Proximity**: Nearness; closeness; the use of distance to convey meaning or feeling.

b. **Body posture**: The position or attitude in which the body is borne.

c. **Body contact**: Touching.

Artifactual mode. In the artifactual mode, messages are primarily received visually although some may be received auditorially or tactiley. Artifacts are man-made or natural objects, manipulated for some purpose to convey a particular message or feeling. Following are subcategories of the artifactual mode:

a. **Body oriented artifacts**: includes objects worn on or placed on the body, such as clothing, jewelry, or handbags.
b. **Body painting**: applying pigment to the body.

c. **Symbolic subsystems**: subsystems created as symbolic expressions relevant within the cultural context. Taken in its broadest sense this category was made to include legal systems, dance, cuisine, methods of exchange, transportation systems, non-body oriented artifacts, and others.

**Reliability**

In order to verify reliability of the data form, ten situations were chosen by use of a chart of random numbers. They were then recoded by David Barnhart, a statistician and sociologist from the Timberlawn Research Foundation, Dallas, Texas. Mr. Barnhart was first instructed in the use of the form by the writer and performed the reliability check independently.

In reviewing the results of Mr. Barnhart's reliability check, "Identification," "Demographic Data" and "Profile of Person(s) Other Than Informant Involved in the Interaction" showed no problem areas, thus indicating high reliability. "Forms of Interaction Within Social Environments" and "Forms of Communicative Behavior" showed high reliability for all except for about a quarter of the items in each section.

Out of twenty-six items in "Forms of Interaction Within Social Environments" there were seven for which reliability was low. Under "Presentation of Self" they included:

a. Presentation of Self,

b. Structuring the Physical Environment,

c. Saving Face of Self,

d. Other.

In the subcategory "Forming and Maintaining Relationships" were:

e. Showing Respect for Others,

f. Saving Face of Others,

g. Other

For a, c, e, and f above, there seemed to be disagreement as to when these were indicated sufficiently
within the original written account of the situation to check the items on the coding sheet. Mr. Barnhart tended to include these items more often than the writer; however, in most cases, the author agreed that these probably were applicable to the situation. Therefore, for these items, more false negatives rather than false positives would be expected in our analysis.

This was also the case for "Strangers," the only item in the "Profile of Individuals Other Than Informant Involved in the Interaction" for which there was any problem in reliability. When indicating "Person Providing Service to Informant" Mr. Barnhart also checked "Stranger" where it appeared applicable; whereas, the author did not make this additional discrimination.

"Structuring the Physical Environment," when classifying the informant's social interactions, appeared to be a confusing item and there was disagreement between Mr. Barnhart and the author as to when this should be used. It appeared that the scope of this variable would need to be more clearly defined in any future research including the variable.

"Other" tended to be checked and defined more often by the author than by Mr. Barnhart, thus, apparently creating some false positives for this variable and false negatives for other items in this section, as the writer checked this when other categories did not seem appropriate. Most often, the false negatives would be expected to fall under a, c, e, and f above, as these were generally the alternatives chosen by Mr. Barnhart.

Under "Forms of Communicative Behavior," out of nineteen items, the following five variables showed questionable reliability:

a. Facial Expression,
b. Body Gestures,
c. Body Postures,
d. Cultural Space (i.e., Ekistics),
e. Symbolic Subsystems.
The discrepancies in coding "Facial Expression" came primarily from the writer's inclusion of this variable when a kiss was involved in an interaction. Although one may expect this to result in some false positives in this category, the item, nevertheless, also seems to act as a discriminating factor when considered in correlation with "Body Contact" and "Intimacy" under social behavior. This is due to the infrequency at which "Facial Expressions" were indicated otherwise in the data and because these three variables all tended to be checked when a kiss was involved.

"Body Gestures" and "Body Postures" tended to be interchanged and confused when coding. This appeared to be particularly true in cases where the informant put his/her arm around someone as opposed to hugging someone. Both the writer and Mr. Barnhart classified hugs as gestures. The writer, unlike Mr. Barnhart, classified putting the arm around someone as a body posture rather than a gesture, primarily to distinguish between the two. Again, with this data, as in the case of the kiss, there tended to be a cluster of variables which defined this behavior: body contact, proximity, body posture, and intimacy, generally along with friendship under social behavior. In another study, however, this may not play true; therefore, these variables would need to be more specifically defined for this particular behavior in future research.

"Cultural Space," as "Structuring the Environment" under social behavior, appeared confusing for Mr. Barnhart. Again, more detailed explanation of the variable or breaking down the variable into smaller categories which would capture the various aspects of the concept may be necessary in future research. For our data, the reliability of both of these variables appears questionable.

"Symbolic Subsystems," as was the case with "Other" under social behavior, was used more often by the author than Mr. Barnhart. It would be expected, then, that reliability may be low and that more false positives may occur. One way to eliminate the trouble with this variable in future research may be to use small groups of two or three coders rather than single coders so that ambiguous situations could be discussed and defined before coded.
Mr. Barnhart was consulted again regarding the statistical analysis phase of this thesis. Because of the small sample size, it was decided that a primarily descriptive analysis would be most appropriate. A card sort method was employed in order to determine frequencies for the primary variables. This provided the greatest ease in manipulation of the data. It was felt that a card sort approach would also be more efficient than utilizing the computer because of the large number of variables and small number of samples.

Variables describing the sample population and interviewer which were included on the card were: a) informant nationality, b) informant age, c) informant sex, d) whether or not the informant was a recent arrival to the United States, e) whether the informant was the respondent or the initiator in the situation, f) the interviewer's sex, g) the academic session in which the interviewer collected data, and h) location of the interview. Case number and informant number were included on the card for identification purposes.

Variables regarding the actual behaviors involved in the incident and which were coded on the card included only the most general categories and were arranged as comparisons. These included: a) inquisitive vs. display behavior; b) goal oriented vs. leisure activity; c) presentation of self vs. forming and maintaining relationships; d) the form of silent language used--sign, action, or object; and e) the general description of mode of communicative behavior(s) used--visual, spatial, auditory, or artifactual. The sets of variables c, d, and e were often found in combinations for the situations rather than as just one single descriptive variable. Whenever this was the case, the combination was recorded. After the general analysis for the variables listed in c, d, and e were completed, selected variables were pulled out and broken down into their smaller components, as listed on the data form for more in-depth analysis.

The Chi^2 Contingency Test Corrected for Continuity was performed for selected variables using a computer program written by Mr. Barnhart and utilized by the Timberlawn Research Foundation.
This test was used to determine if the sample distribution by culture group was significantly different from the expected distribution. It was also used to determine whether sample distribution by sex was significantly different from the expected distribution over the entire three-year period in which samples were collected. The Chi² Contingency Test was used further with select variables describing the social and communicative behavior involved, comparing the frequencies at which those variables were present within a particular culture group with the frequency at which they occurred within the general sample population.

Limitations

Initially, there had been considerable concern regarding the collection of data for this study. Each situation was collected by a different student. The data were collected over a period of three years by students from five classes. Instructions regarding proper methodology in collecting the data were given by four teaching assistants and three professors. Because of these factors it was questionable as to whether there would be sufficient consistency in the way data were collected.

Another concern had been with the sample itself. Since there was no systematic method used in sampling the international student population, it appeared questionable whether the various culture groups represented at the university during the time data were collected would be adequately represented. The same question arose regarding the proportion of males versus females in the sample.

The above concerns will all be addressed under "Findings" later in this thesis. As will be discussed, our sample was actually much more representative, with a few exceptions, than was originally expected. One limitation that was not corrected, however, was sample size. The small size of our sample has made extensive statistical analysis impossible. This is particularly true in terms of the more specific variables listed on the data form under "Classification of Informant's Interaction Within Social Environments," "Profile of Individual's Other Then Informant Involved in the Interaction," and "Forms of Communicative Behavior."
A final limitation is one which we are really not able to assess at this time. It is uncertain whether the informants reported their *most* embarrassing examples of miscommunication. It is also unclear as to whether they would be able to recognize what was happening in many incidents of miscommunication. The low number of reported incidents of difficulty when communicating via paralanguage, nonvocal sound, or sound symbolism, for example, may be more due to a lack of awareness of the communicative nature of these particular modes than to ability to communicate effectively to community members using these modes.
FINDINGS

In this chapter, the results of data analysis are presented. First, a descriptive analysis of the sample population, and a comparison with the total Iowa State international student population for the same period are included. Second, findings regarding those involved in the interactions are presented. Third, findings regarding the primary variables describing the social environment in which the situation occurred are discussed. Finally, communicative behavior utilized in the interactions is examined, with consideration of some of the specific communication modes used.

Descriptive Analysis of the Sample Population

In this descriptive analysis of the sample population we look first at which countries and cultural regions are represented in our sample. This is compared to the general international student population at Iowa State during the same time period. Next is a consideration of the representation of males and females in our sample. Chi² Contingency Tests Corrected for Continuity are used to verify both of these variables. Third is a look at how our sample is distributed according to age. Fourth is a discussion regarding whether or not the informant is a recent arrival to the United States.

The sample was first broken down according to country represented. Informants came from 48 foreign countries and two American subcultural groups. These subcultural groups included one sample from a Hopi Indian and five samples from Puerto Ricans. Even though these are both American groups, it was decided to include them in our sample because they represent ethnic groups that are considerably different from the dominant American culture. Both were included together under the category "Americans in a Strange Land." The greatest representation by country in our sample was Iran with twenty-two informants, followed by Lebanon with ten informants, China with seven, and Japan with six.

Because of the small numbers in our sample, countries were grouped into one of eight cultural regions or areas: 1) Africa, 2) Americans in a Strange Land, 3) Asia - Far East, 4) Asia - Indian Peninsula, 5) Asia - Middle East, 6) Asia - Southeast, 7) Europe, and 8) Latin America and the Caribbean. Because of its vast cultural differences, Asia was broken down into four cultural regions.
Latin America and the Caribbean were combined because of the extremely small number of samples from the Caribbean. Table 2 provides a profile of informants showing representation by cultural area and country.

The Chi² Test was performed in order to determine goodness of fit for our sample in comparison with the Iowa State international student population in regard to culture area. Figures for the latter were provided by Mr. Dennis Peterson, Assistant Director of the Office of International Educational Services, Iowa State University. Tests were performed at two significance levels, .05 and .01. It was found that for the entire period from 1980, to 1982, Africa, the Indian Peninsula, Europe, and Latin America and the Caribbean showed no significant deviation from the general international student population. Americans in a Strange Land, Far East Asia, the Middle East, and Southeast Asia all showed significant deviation at a .01 level of significance. Figure 6 illustrates the proportionate breakdown by culture group for our sample as compared with the general international student population.

The Chi² Test was performed comparing the sample population for the year 1981, and then for 1982, with the general international population for those years. Figures for the general international student population were not available for the year 1980. For 1981, all areas showed good fit except Americans in a Strange Land at .01 level of significance. For 1982, all areas showed good fit except Americans in a Strange Land at .01 level of significance and Far East Asia at .05 level of significance. It should be noted that since Americans in a Strange Land was not included in the figures from the Office of International Educational Services, it would be expected that this category would show significant deviation from the general international student population. Table 3 provides a profile of informants by culture area for the years 1980, 1981, and 1982, including the percentage of the total Iowa State international student population with which each sample group corresponds. Our next
Table 2. Informant profile showing representation by cultural region and country

<table>
<thead>
<tr>
<th>Cultural Region</th>
<th>Number Sample from Cultural Region</th>
<th>Country</th>
<th>Number Sample from Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>14</td>
<td>Algeria</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kenya</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nigeria</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rhodes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>South Africa</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tunisia</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uganda</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zimbabwe</td>
<td>1</td>
</tr>
<tr>
<td>Americans in a Strange Land</td>
<td>6</td>
<td>Hopi Indian</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Puerto Rico</td>
<td>5</td>
</tr>
<tr>
<td>Asia - Far East</td>
<td>18</td>
<td>China</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Japan</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Korea</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Okinawa</td>
<td>1</td>
</tr>
<tr>
<td>Asia - Indian Peninsula</td>
<td>10</td>
<td>India</td>
<td>5</td>
</tr>
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<td></td>
<td></td>
<td>Pakistan</td>
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<tr>
<td>Asia - Middle East</td>
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<td></td>
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<td>Jordan</td>
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<td></td>
<td></td>
<td>Lebanon</td>
<td>10</td>
</tr>
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<td></td>
<td></td>
<td>Palestine</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Saudi Arabia</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Turkey</td>
<td>5</td>
</tr>
<tr>
<td>Asia - Southeast</td>
<td>12</td>
<td>Indonesia</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Malaysia</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Philippines</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thailand</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vietnam</td>
<td>5</td>
</tr>
<tr>
<td>Europe</td>
<td>13</td>
<td>France</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Germany</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greece</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Holland</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Norway</td>
<td>1</td>
</tr>
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</table>
Table 2 (Continued)

<table>
<thead>
<tr>
<th>Cultural Region</th>
<th>Number Sample from Cultural Region</th>
<th>Country</th>
<th>Number Sample from Country</th>
</tr>
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<tbody>
<tr>
<td>Europe continued</td>
<td></td>
<td>Russia</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spain</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sweden</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Switzerland</td>
<td>1</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>23</td>
<td>Brazil</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Central America</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Unspecified)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Colombia</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Costa Rica</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dominican Republic</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equador</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guatemala</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guyana</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Honduras</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jamaica</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Panama</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>South America</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Unspecified)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Venezuela</td>
<td>2</td>
</tr>
</tbody>
</table>
Figure 6. Comparison of ISU international student population averaged over 1981 and 1982 and the sample population in regard to distribution by culture area.
Table 3. Profile of informants by culture area, including percentage of total international student population at Iowa State during the same period

<table>
<thead>
<tr>
<th>Cultural Region</th>
<th>1980 Actual No. in Sample</th>
<th>% of Sample Population</th>
<th>% of Total Population</th>
<th>1981 Actual No. in Sample</th>
<th>% of Sample Population</th>
<th>% of Total Population</th>
<th>1982 Actual No. in Sample</th>
<th>% of Sample Population</th>
<th>% of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>6</td>
<td>8.1</td>
<td>NA</td>
<td>6</td>
<td>12.0</td>
<td>11.3</td>
<td>2</td>
<td>9.5</td>
<td>12.7</td>
</tr>
<tr>
<td>Americans in a Strange Land</td>
<td>2</td>
<td>2.7</td>
<td>NA</td>
<td>1</td>
<td>2.0</td>
<td>0.0</td>
<td>3</td>
<td>14.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Asia - Far East</td>
<td>10</td>
<td>13.5</td>
<td>NA</td>
<td>7</td>
<td>14.0</td>
<td>25.7</td>
<td>1</td>
<td>4.8</td>
<td>26.7</td>
</tr>
<tr>
<td>Asia - Indian Peninsula</td>
<td>4</td>
<td>5.4</td>
<td>NA</td>
<td>3</td>
<td>6.0</td>
<td>7.7</td>
<td>3</td>
<td>14.3</td>
<td>9.7</td>
</tr>
<tr>
<td>Asia - Middle East</td>
<td>23</td>
<td>31.1</td>
<td>NA</td>
<td>16</td>
<td>32.0</td>
<td>18.6</td>
<td>5</td>
<td>24.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Asia - Southeast</td>
<td>10</td>
<td>13.5</td>
<td>NA</td>
<td>5</td>
<td>10.0</td>
<td>21.1</td>
<td>2</td>
<td>9.5</td>
<td>24.9</td>
</tr>
<tr>
<td>Europe</td>
<td>6</td>
<td>8.1</td>
<td>NA</td>
<td>5</td>
<td>10.0</td>
<td>7.7</td>
<td>2</td>
<td>9.5</td>
<td>7.4</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>13</td>
<td>17.6</td>
<td>NA</td>
<td>7</td>
<td>14.0</td>
<td>13.3</td>
<td>3</td>
<td>14.3</td>
<td>14.1</td>
</tr>
</tbody>
</table>

Total Samples - 74
Total Samples - 50
Total Samples - 21
consideration was representation of males versus females and how this compared to the general international student population for 1980-1982. In our overall population, males represented the majority of the population and females represented 22.4%. In our sample, females were 25.5%, slightly higher than the general international student population. The Chi$^2$ Test was performed in order to test whether this deviation was significant. It was found that it was not significant. The same test was performed for the individual years, 1980, 1981, and 1982, in which data were collected. Here again, no significant deviation from the expected frequency of males to females was found. Tests were performed at .01 and .05 levels of significance. Figure 7 shows a comparison of the sample population and the general Iowa State international student population for the entire test period from 1980, through 1982, and for the individual test years, 1980, 1981, and 1982.

When crossing sex and culture area for our sample it was found that Americans in a Strange Land had the largest proportion of females to males, with the females actually outnumbering the males two to one. This was the only group, however, in which there were more females than males. The Far East Asians showed the next largest proportion of females with 44.4% of the group being female. Africans showed the smallest proportion of females with males representing 100% of the African sample. A representation of the entire sample by sex and culture area is shown in Figure 8.

In regard to age, it was found that our sample is made up of primarily eighteen to twenty-five year olds. The sample was first tabulated, listing each year within the range of ages represented, from eighteen to thirty-eight. Ages were unknown for five informants. Figure 9 shows the distribution of our sample population by age. Distribution crossing sex and age is also included. After ages were tabulated, they were grouped into ranges of four years each. The last grouping, however, consisted of a range of five years, thirty-four to thirty-eight. As ages increased, with the exception of the final age range, the number of samples within each range decreased. The thirty-four to thirty-eight year old range showed a slight rise over that of the thirty to thirty-three year old range.
Figure 7. Comparison by sex of sample population and Iowa State University international student population during the years in which data were collected.
Figure 8. Profile of sample by sex and culture area
Figure 9. Distribution of sample by age and sex
Distribution by age range and sex is shown in Table 4. Because our sample represents primarily eighteen to twenty-five year olds we could predict that it also represents a primarily undergraduate population. Such a population would, most likely, be less experienced than a graduate population in communicating with persons from other cultures. This, of course, would need to be tested further before any definite conclusions could be formed.

It should be noted here that tabulations discussed after this point in this thesis will be on the basis of 139 samples rather than the original 145. Sample situations which dealt primarily with miscommunications due to incorrect use of verbal American English were not coded further. Table 5 provides a profile of these samples.

In considering whether the informants were recent arrivals to the United States or whether they had been here for more than six months, we found that 29.5% were recent arrivals. In all groups except the Africans, the majority of the informants had been in the United States for at least six months prior to the reported incident. For the Africans, however, we found the inverse to be true. The figures showed that 71.7% of this group were recent arrivals. The Chi² Test was performed and it was found that this deviation was significant at a level of .01.

Those Involved in the Interaction

In doing the tabulations regarding those involved in the interactions described, it was decided, because of the small sample size and the huge amount of information gathered, that only two dichotomies would be examined for the sample population: 1) public versus private behavior and 2) individual versus group behavior.

Regarding the first dichotomy, 54% of our sample reported interactions which were private in nature while 46% reported situations that occurred in public places. We would expect some effect on the interaction due to the presence of possible observers in the public situations. Two cultural regions showed a higher number of public situations than private situations. These were the African and the Latin American and Caribbean regions. When Chi² Tests were performed, however, the deviation was not found to be significant.
Table 4. Profile of sample population by age range and sex

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. in Sample</td>
<td>% in Sample</td>
<td>No. in Sample</td>
<td>% in Sample</td>
<td>No. in Sample</td>
<td>% in Sample</td>
</tr>
<tr>
<td>18-21</td>
<td>41</td>
<td>28.3</td>
<td>21</td>
<td>14.5</td>
<td>62</td>
<td>42.8</td>
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<td>22-25</td>
<td>39</td>
<td>26.9</td>
<td>11</td>
<td>7.6</td>
<td>50</td>
<td>34.5</td>
</tr>
<tr>
<td>26-29</td>
<td>16</td>
<td>11.0</td>
<td>3</td>
<td>2.1</td>
<td>19</td>
<td>13.1</td>
</tr>
<tr>
<td>30-33</td>
<td>3</td>
<td>2.1</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>34-38</td>
<td>5</td>
<td>3.5</td>
<td>1</td>
<td>0.7</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Age Unknown</td>
<td>4</td>
<td>2.8</td>
<td>1</td>
<td>0.7</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>108</td>
<td></td>
<td>37</td>
<td></td>
<td>145</td>
<td></td>
</tr>
</tbody>
</table>
Table 5. Profile of samples eliminated because they dealt primarily with misunderstandings due to incorrect use of verbal American English

<table>
<thead>
<tr>
<th>Cultural Region</th>
<th>Country of Origin</th>
<th>Sex</th>
<th>Age</th>
<th>Sex</th>
<th>Academic Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Zimbabwe</td>
<td>Male</td>
<td>33</td>
<td>Female</td>
<td>Spring 1981</td>
</tr>
<tr>
<td>Asia - Middle East</td>
<td>Iran</td>
<td>Male</td>
<td>20</td>
<td>Female</td>
<td>Spring 1981</td>
</tr>
<tr>
<td>Asia - Middle East</td>
<td>Palestine</td>
<td>Male</td>
<td>24</td>
<td>Female</td>
<td>Spring 1981</td>
</tr>
<tr>
<td>Asia - Southeast</td>
<td>Philippines</td>
<td>Female</td>
<td>20</td>
<td>Female</td>
<td>Spring 1981</td>
</tr>
<tr>
<td>Asia - Southeast</td>
<td>Vietnam</td>
<td>Male</td>
<td>Unknown</td>
<td>Male</td>
<td>Spring 1982</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>Mexico</td>
<td>Male</td>
<td>24</td>
<td>Female</td>
<td>Spring 1981</td>
</tr>
</tbody>
</table>
As would be expected, it was found that the vast majority of our sample situations involved group behavior rather than individual communicative behavior. There were 12 in the sample which involved only the informant and 127 which involved at least one other person besides the informant. Of the reported situations involving the informant only, 5 had to do with the use of body oriented artifacts. Four involved some form of transportation with 3 of these also involving spatial orientation.

Primary Variables Describing the Social Environment

In describing the informants' interaction within the social environment, four groups of contrasting variables are considered: 1) whether the informant was the initiator or the respondent; 2) whether the behavior was leisure or goal oriented; 3) whether the behavior was inquisitive or display; and 4) whether the purpose of the behavior was presentation of self, forming and maintaining relationships, or both.

For our sample, seventy-five informants were the initiator of the interaction and sixty-four were the respondent. For all culture groups, with the exception of the Latin Americans and the Far East Asians, more informants were initiators than respondents. The Latin Americans reported eighteen situations in which the informant was the respondent and only four in which the informant was the initiator of the interaction. This was significant at the .01 level when the Chi\(^2\) Test was applied. Figures for the Far East Asians did not show a significant deviation from the norm. For this group, six informants reported situations where miscommunication occurred in which they were responding to someone else and four in which they were the initiator of the interaction.

The majority of the situations reported involved leisure activities rather than goal oriented activities. There were eighty-five informants who reported situations involving leisure activities and fifty-four reporting situations which involved goal oriented activities. The predominance of leisure activity was true for all groups with the following two exceptions. Asians from the Indian Peninsula reported equal numbers of leisure and goal oriented situations. The Far East Asians showed a significant deviation from the norm in regard to this variable. There were thirteen who reported
situations in which they had communication difficulties which involved goal oriented activity and only five which involved leisure activity. This was significant at a level of .01. We may expect, then, that the Far East Asians engage in less leisure activity with American community members than international students from the other cultural regions.

Cultural regions were consistent in regard to the predominance of display behavior over inquisitive behavior reported: 124 situations involving display behavior and only 15 involving inquisitive behavior. This may suggest that situations in which information is being sought would be primarily verbal interchange rather than nonverbal and, therefore, would not have been reported in this study.

Our final category in regard to social environment involved the contrast and/or combination of behavior for the purpose of presenting self or behavior for the purpose of forming or maintaining relationships. Three options were available here. Situations may involve presentation of self only, forming and maintaining relationships only, or both. For this sample, seventy-two informants reported situations that involved both; thirty-eight reported presentation of self, and twenty-nine reported forming and maintaining relationships. For all but three groups, more situations were reported which involved activity related to presentation of self. The Indian Peninsula Asians, the Middle Easterners, and the Southeast Asians, however, appeared to have more difficulty with situations for which the purpose was forming and maintaining relationships.

There does appear, then, to be a pattern regarding the most common problems in regard to the social environment in which the interaction takes place. This pattern seems to fit for the majority of the international students in the sample. In each category, however, we see deviations which appear to be culturally linked in some way. These deviations may act as predictors for areas which will be particular problems for members of certain cultural regions. Our analysis also seems to indicate that the Asian groups show the greatest deviation at least in regard to the type of social environment in which miscommunications occur. Table 6 summarizes the patterns for each cultural region.
Table 6. Patterns by cultural region of the most common miscommunication problems in regard to the social environment in which the interaction takes place

<table>
<thead>
<tr>
<th>Cultural Region</th>
<th>Initiator</th>
<th>Leisure vs.</th>
<th>Inquisitive vs.</th>
<th>Presentation of Self vs.</th>
<th>Forming/Maintaining Relationships vs. Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Initiator</td>
<td>Leisure</td>
<td>Display</td>
<td>Presentation of Self</td>
<td></td>
</tr>
<tr>
<td>Americans in a Strange Land</td>
<td>Initiator</td>
<td>Leisure</td>
<td>Display</td>
<td>Presentation of Self</td>
<td></td>
</tr>
<tr>
<td>Asia - Far East</td>
<td>Respondent</td>
<td>Goal Oriented</td>
<td>Display</td>
<td>Presentation of Self</td>
<td></td>
</tr>
<tr>
<td>Asia - Indian Peninsula</td>
<td>Initiator</td>
<td>Both Equally</td>
<td>Display</td>
<td>Forming/Maintaining Relationships</td>
<td></td>
</tr>
<tr>
<td>Asia - Middle East</td>
<td>Initiator</td>
<td>Leisure</td>
<td>Display</td>
<td>Forming/Maintaining Relationships</td>
<td></td>
</tr>
<tr>
<td>Asia - Southeast</td>
<td>Initiator</td>
<td>Leisure</td>
<td>Display</td>
<td>Forming/Maintaining Relationships</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>Initiator</td>
<td>Leisure</td>
<td>Display</td>
<td>Presentation of Self</td>
<td></td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>Respondent</td>
<td>Leisure</td>
<td>Display</td>
<td>Presentation of Self</td>
<td></td>
</tr>
</tbody>
</table>
Europeans, Africans, and Americans show the same pattern: initiator/leisure/display/presentation of self. Middle Easterners and Southeast Asians show the pattern: initiator/leisure/display/forming and maintaining relationships. The remaining three cultural regions show varying patterns specific to their group.

Communicative Behavior Reported

In this section, we will first examine the form of silent language reported. Then, we will look at the communicative modes used in the interactions reported in our sample. Examples will be provided in order to illustrate our profile.

Looking at the form of silent language reported, we had only one incident that involved sign language. This incident involved a joke played on a Middle Easterner by an American student. The majority of the situations, however, involved action language with ninety-four situations falling into this category. Examples include greetings, displays of friendship, orientation in time, and others. Another twenty-four included both action language and object language only. Examples here include appropriate dress, methods of payment for goods, and others. For all cultural regions, a high number of situations involving action language were reported.

In tabulating communicative modes utilized, a list was first made of the fifteen possible combinations of the four basic modes which appeared in the data. The basic modes are: visual, spatial, auditory, and artifactual. Each combination showed at least one situation reported.

After tabulating the various combinations, these were collapsed in order to determine the total number of situations for which each basic mode was checked. The spatial mode was utilized in the greatest number of situations: 99 of 139. The was followed by the visual mode with 66 cases, the artifactual mode with 49, and the auditory mode with 32.

Four combinations were found which included the spatial mode. These were, in descending order from most to least frequently reported: 1) visual/spatial, 2) spatial only, 3) spatial/auditory, and 4) spatial/artifactual.
The greatest number of situations reported in one category fell within the combination visual/spatial, with forty-one samples listed. An example is the combination of facial expression/body gestures/proximity/body contact which when coded along with greeting/friendship/intimacy under "Forming and Maintaining Relationships" refers to greetings between friends which involve a kiss and some other gesture, such as a handshake. When the additional variable of intrusion under "Presentation of Self" is also present, which was often the case, our international student has most likely attempted to use traditional greetings, as described above, with a participant whose "personal bubble" extends farther than that of the international student.

Twenty-one cases included only the spatial mode. Among these were instances where male students were observed walking with their arms around each other's shoulder and female students were seen walking hand in hand. This was particularly true of students from cultures that Montagu and Matson (1979) described as "contact cultures," where this type of body contact is normative. The embarrassment arose when onlookers assumed that the international students were "gay."

Spatial/auditory and spatial/artifactual combinations each included thirteen situations. In one example of this combination, body posture under "Spatial Orientation" and nonvocal sounds under "Auditory Mode" were checked. The Korean female involved was viewed by her friends and others in the dorm cafeteria as having very poor table manners when she picked up her soup bowl and slurped her soup. A twenty-one year old Chinese male provided an example of the spatial/artifactual combination. This situation centered around clothing, the concept of personal property, and the informant's distress when his American friend's wife invaded his territory and took his coat in order to hang it up.

Within the collapsed category, "Visual Mode," eight different combinations emerged. The most reported, visual/spatial, was discussed previously. For the visual/artifactual mode, the second most reported with seven cases, two examples involved an Iranian female and related to the manner in which food should be distributed. There were also seven cases for the visual/spatial/auditory
combination. An example involved a twenty-two year old Nigerian male. He had been at a party and noticed an American male and female couple arguing loudly. The female slapped the male in the face and left. After this, the Nigerian, disgusted at the female's disrespectful behavior, walked up to the male and told him he should not let her get away with what she had done. He should go find her and beat her!

Within the artifactual mode, eight combinations emerged. The most interesting combination is artifactual mode only. The sixteen cases reported here comprised the second largest combination in the study. An example under this category was a situation in which a South African graduate student found himself whenever he taught at Iowa State as a teaching assistant. He felt that he was not being treated respectfully by his students because of their casual dress. In his country, a male student must wear a tie in order to attend a university lecture, in part, as a sign of respect for the instructor.

There were seven auditory combinations. Spatial/auditory (thirteen cases) was the most frequently reported, followed by visual/spatial/auditory (seven cases). Both have already been discussed. The third largest category was auditory only (four cases). A twenty-two year old Chinese male provided us with an example of this mode when he frequently passed gas during tutoring sessions at the speech clinic. This is one of the few examples of nonvocal sound found in our sample.

In regard to cultural region, all groups except the Europeans showed a high number of cases involving the spatial mode. The Europeans reported only nine in the spatial mode and ten in both the visual and artifactual modes. The visual mode showed the next highest frequency for all groups except the Southeast Asians who showed a slightly higher frequency for the artifactual mode. Except in the cases already mentioned, the artifactual mode was the third most frequently reported communicative mode and the auditory mode was the least reported for all groups. Although the frequencies were fairly consistent across culture groups, the spread across combinations showed considerable variance between groups. The greatest discriminator would be expected from the more
specific categories such as proxemics, intimacy, and paralanguage. This would be expected to be particularly true if taken in combination with social factors and information regarding other participants in the interaction. It was noted, for example, when coding the various situations, that Middle Easterners and Latin Americans particularly reported several incidents involving misunderstandings regarding intimacy with members of the same sex. These incidents would include some combination of spatial and visual communicative modes. It would be necessary to do further analysis considering at least the specific communicative modes, such as proximity or intimacy (touching), to isolate examples such as these.

From our analysis, we can say, nevertheless, that this sample of international students at Iowa State reported more incidents of miscommunication involving the spatial mode than any other. The visual mode was also shown to be involved in a high number of problem situations. All four modes, nevertheless, were reported in at least twenty-three percent of the situations; so it appears that a better understanding of all modes would be helpful to the international student at Iowa State University.
RECOMMENDATIONS

Two consistent problems in analyzing the data presented in this thesis were the small sample size and the large number of variables being considered. The small sample size made extensive statistical analysis impossible while the large number of variables created vast amounts of information which became unwieldy. Successful manipulation of the data would best be accomplished with a well-developed data management and analysis program for computer. If handled in this way, it may be possible to include the more specific variables which are important to a thorough understanding of the difficulties experienced in communicating nonverbally. This would be particularly valuable if a larger sample were obtained.

In verifying the findings presented in this thesis or in further exploration of certain concepts presented, one might focus the investigation on selected variables of particular interest as well as the broader categories that were presented here. Any of the groups of variables presented could be the basis of pertinent study regarding communication problems experienced by international students interacting with community members in a host environment. Another possibility would be to break a large project into small, manageable phases and duplicate the present study, with the modifications discussed below.

In order to strengthen confidence in the data, the following modifications are recommended for future investigations. Additional variables should be included regarding the interviewer and the informant. Data collected on the interviewer should include: age, sex, race, national origin, cultural background (including American subculture), major field of study (if a student), occupation or profession, training and experience in interviewing techniques, and training and experience with the test instrument. Data collected on the informant should include those variables which were listed previously in "Methodology" as well as: race, cultural background and religion; education and area of study; number of years in the United States as well as number of years in the location at which data are collected (e.g., campus); previous training in the English language; previous orientation training and/or experience in American culture; work experience in the United States; living arrangements (on
or off campus, type of housing, and cultural background of roommates); type of sponsorship (e.g., home government, other agency, self, department fellowship, and so forth); plans on completion of educational goals (to return to home country, to remain in the United States, to seek employment elsewhere, and so forth). These data should be collected after the segment of the interview regarding miscommunications is completed so as to avoid any possible contamination of the miscommunications data.

This modified research instrument should be administered again at Iowa State as well as on other academic campuses. This will enable a comparative study over time of patterns of miscommunication associated with particular regional or national groups at Iowa State as well as a comparison of these data with that from students in other academic communities.

In coding the data, I would suggest that two or three coders work together to clarify the behaviors reported and that coders be thoroughly trained in the meaning of all variables. (See "Reliability" for those variables which may require special attention.) This method would provide more reliable data and would eliminate some of the difficulty encountered in attempting to determine which variables apply to the situations reported.

Finally, I would suggest that data be collected directly, at some point, rather than through verbal recall. This may provide information on some of the less frequently reported communicative modes such as paralanguage and sound symbolism. Direct acquisition of data can be accomplished through the use of videotape. Classes or group situations in which the handbook/workbook is used will be ideal for videotaping. If the classes are videotaped throughout the entire course outlined in the teacher's guide to the handbook/workbook, the effects of the group's reaction to the camera will be reduced, thus providing more reliable data for analysis.

The most significant consequence of this investigation will be the production of a practical guide for helping international students to better understand nonverbal communication and its implications for avoiding miscommunication in a foreign cultural setting. Work will begin on a handbook/workbook and teachers' guide to accomplish this goal. In discussions subsequent to presentation of
the findings to date, it appears that an experiential format presented in workbook form would be most effective in heightening the international student's awareness of the many modes of nonverbal communication along with the more common situations in which miscommunications seem to occur. This workbook would be designed for use either in a workshop or more formal class situation. It could also be used in more individualized tutorial situations between an international student and community member. Regardless of which setting is used, I would emphasize the importance for the international student of working with a community member so as to establish a relationship with someone from the host culture and to experience, first hand, in a nonthreatening environment, various modes of nonverbal communicative behavior in the United States.

Plans are also being made to extend the applicability of the workbook beyond the international student as a useful guide for any person or group interacting in an environment culturally different from the one most familiar to them.
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APPENDIX A: MISCOMMUNICATIONS DATA FORM
MISCOMMUNICATIONS DATA FORM

I. IDENTIFICATION

Case No._______ Informant No._______

Location of Interview __________________________________________

Interviewer: Sex_______ Academic Class_________________________

II. DEMOGRAPHIC DATA

Informant: Age_______ Sex_______ Nationality_____________________

Informant is recent arrival to the U.S.: ____Yes ____No

III. FORMS OF INTERACTION WITHIN SOCIAL ENVIRONMENTS

A. Informant Role: ____Respondent vs. ____Initiator

B. Types of Behavior: ____Inquisitive vs. ____Display

___Goal Oriented vs. ___Leisure

C. Presentation of Self: ____Yes ____No (check all that apply)

___Prologue __________________ Structuring the Physical
___Intrusion __________________ Environment
___Proximity __________________ Saving Face of Self
___Presentation of Self ____________ Eating
___Preparatory Rites/ ____________ Other (list)______________
    Grooming
___Adornment

D. Forming and Maintaining Relationships: ____Yes ____No
   (check all that apply)

___Greeting __________________ Other(s) Showing Respect
___Getting Acquainted ____________ for Informant
___Friendship __________________ Saving Face of Other(s)
___Courtship __________________ Showing Disapproval
___Intimacy __________________ Other (list)______________
___Showing Respect for
   Others

1 For an explanation of all terms used in this data form see Cecelia Halwani, 1986, (thesis) When Cultural Rules Conflict: Miscommunications between ISU International Students and ISU/Ames Community Members, pp. 62-75.
E. Profile of Person(s), Other Than Informant Involved in the Interaction (check all that apply)

- Public Behavior/Secondary Interaction Group
- No Primary or Secondary Interaction Group
- Other Foreign Student(s)
- American Student(s)
- Faculty/Administrators/University Staff
- Other Community Member(s)

Person(s) Inf. Knows

- Person(s) Inf. Doesn't Know

- Person(s) of Same Age
- Older Person(s)
- Younger Person(s)
- Stranger(s)
- Person(s) Providing a Service
- Acquaintance(s)
- Friend(s)
- Relative(s)
- Intimate(s)

Person(s) of Same Sex
Person(s) of Opposite Sex

IV. FORMS OF COMMUNICATIVE BEHAVIOR (check all that apply)

A. Forms of "Silent" Language Used (check at least one):

- Sign
- Action
- Object

B. Mode(s) of Communicative Behavior Used (check all that apply):

1. Visual Mode (Kinesics)
   - Facial Expression
   - Gaze
   - Head Nod (Gestural)
   - Body Gestures

2. Spatial Orientation (Proxemics)
   - Proximity
   - Body Posture
   - Body Contact
   - Orientation
   - Cultural Space (Ekistics)

3. Auditory Mode
   - Non-vocal Sounds
   - Paralanguage (Nonverbal Vocal)
   - Sound Symbolism (Nonverbal Voc.)
   - Language (Auditory)

4. Artifactual Mode
   - Body Oriented Artifacts
   - Body Painting
   - Symbolic Subsystems (list)
APPENDIX B: AN EXERCISE IN APPLIED ANTHROPOLOGY
AN EXERCISE IN APPLIED ANTHROPOLOGY

This mini-project is an exercise in applied anthropology using the techniques of interviewing and analyzing data to extract cultural rules.

Most foreign students at some point find themselves in unexpected and often embarrassing situations in which they fail to act in accordance with American rules of behavior. Through this exercise we hope to compile a series of such situations to prepare a handbook for new foreign students arriving at ISU.

Find a friendly foreign student and ask him or her to recall one awkward situation which took place in Ames and involved themselves and one or more Americans. This should not include a misunderstanding which was merely due to poor communication in English. (If he or she cannot recall such a situation, find another informant.)

Ask enough questions about the incident to elicit from your informant the correct rules in his or her own country that he or she was conforming to. From your own experience, work out what American cultural rule(s) of behavior were broken.

HAND-IN SHOULD TAKE THE FOLLOWING FORM:

1. Use 5 x 8 field note cards or paper. (Maximum three cards)
2. Record the following information at the top of each card:
   - Field note #, Informant #, Age, sex, nationality, Where, Date,
   - Your name
3. Describe the incident briefly, referring to the informant by number. Include information on context or setting, number of people involved, their sex, age, occupation, if relevant.
4. At the end state:
   - A. The informant's cultural rule:
   - B. The American cultural rule:
5. Journal comments on a separate card are required.

+++++++++++ DUE JULY 9, FRI. ++++++++++

RESPECT THE PRIVACY OF YOUR INFORMANT BY NOT INCLUDING HIS OR HER NAME ON THE FIELD NOTE CARDS.