

THE IMPACT OF CROSS-CULTURAL INTERACTION ON
CULTURAL VALUES: A STUDY OF
CHINESE STUDENTS

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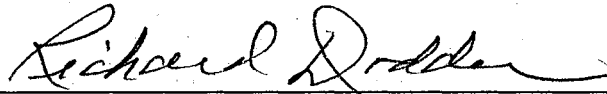
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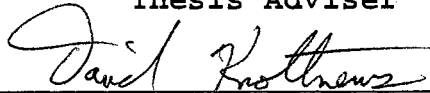
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VALUE CHANGE: A STUDY ON CHINESE
STUDENTS IN THE UNITED STATES

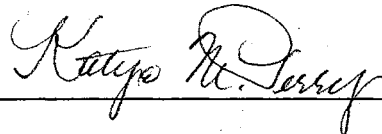
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CHAPTER I
INTRODUCTION

The world has become a global village in which members of different cultures find themselves face-to-face. Consequently, diverse cultural value systems come into contact. While cultural values have been of lasting interest to scholars in multidisciplinary, it is the accelerated globalization that has turned such classic topics as culture clash and value change into timely issues. The United States has always been a mixed cultural space. American universities, as a mini-cosmos, provide an ideal research setting for observing cross-cultural interactions and cultural value transformation.

Research Background

Increasing numbers of international students entering into the United States are becoming an obvious phenomenon on American university campuses. Chinese students, in particular, have formed the largest and fastest growing group among all international students in the U.S., including the Mid-Western state university where the current

study is conducted.

Despite their increasing numbers, the experience of international students in the United States has not been always smooth. In fact, studying in the U.S. has proved to be a continuing, sometimes painful, adjustment process to many of these students (Taft 1977; Hull 1978; Weissman and Furnham 1987; Kim and Ruben 1988). Furthermore, as sojourners, most international students will eventually go back to their home countries. Upon returning home, these students often find themselves facing another adjustment task: readjustment to the environment of their motherland to which they have now become "strangers" (Brislin and Van Beren 1974). This adjustment/readjustment issue not only is of critical concern to international students themselves, but also has important implications to both host countries and sending countries. Facing all parties involved has been a fundamental but unsolved question: What factors most significantly determine international students' adjustment and readjustment endeavors?

Previous research notices that cultural value differences between sojourners and their hosts result in culture shock (Oberg 1960; Triandis 1980; Furnham and Bochner 1982, 1986; Gudykunst and Kim 1984; Befus 1988). Two patterns of culture shock have been examined in the

literature: a U-Curve of culture shock among sojourners in their adjustment to new cultural environment; and a W-Curve in their readjustment upon returning home countries (Gullahorn and Gullahorn 1963, 1966; Church 1982). Consequently, cultural values have been identified as an important factor for psychological and sociocultural adjustment of sojourners (Ward and Searle 1991; Ward and Kennedy 1993). There has also been an increasing realization that cultural values of the international students may experience more or less a change due to their continuous interaction with the American culture and society (Brislin 1981; Furnham 1988, Kim and Ruben 1988; Searle and Ward 1990).

According to these studies, those who have adapted their values to a new cultural environment may function better in the host society. Adaptation to the host society may help these students to achieve academic success and socio-psychological well-beings. Those who have largely maintained their cultural values may experience more difficulties in functional and emotional terms while residing in the United States. However, when they return home upon their graduation, their readjustment process may be less painful than those who have experienced value change. Cultural adjustment and readjustment put

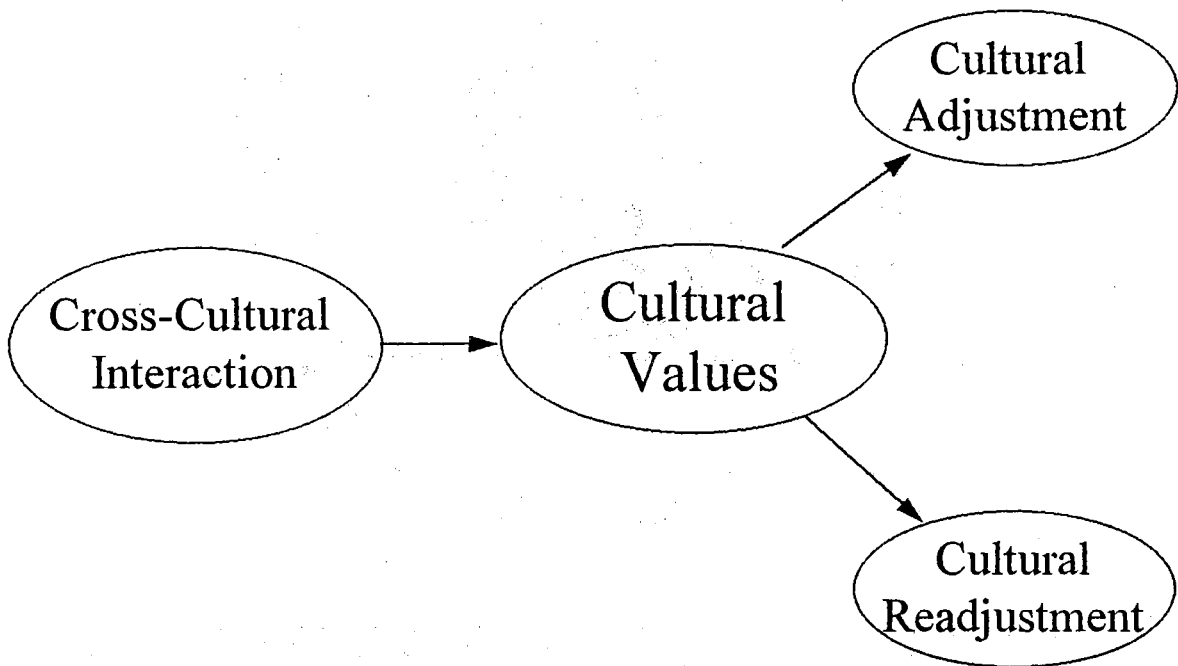
international students in a dilemma of cultural value change and maintenance. A main objective of the current research is to advance our understanding of this dilemma.

One possible outcome of the cultural adjustment process is the creation of "intercultural" or "multicultural" personalities (Kim and Ruben 1988). In the process of cultural transformation, international students' cognitive, affective, and behavioral capacities may increase. Usually, these students obtain a deeper understanding of cultural diversity and experience a feeling of competence. Their self and cultural consciousness allow them to manage intercultural differences with increased capacities. They can see things beyond their original cultural boundary and yet maintain their ethnic identities.

In light of the potential consequences of value change/maintenance among international students, the next question to be addressed is: What factors affect change in cultural values among international students? Thus, it is another objective to identify and analyze the factors that impact the process of cultural value transformation.

Figure 1 illustrates the objectives of the current study.

FIGURE 1
RESEARCH OBJECTIVES



Conceptual Model

Based on the findings from the multi-disciplinary literature, this study relates cultural values to cultural contact (Amir 1969; Gudykunst 1977; Hull 1978), cultural attitudes (Berry 1980), and reference group locations (Siegel and Siegel 1957; Brislin 1981). As critical ingredients of cross-cultural interaction, cultural contact, cultural attitudes, and reference group are posited to influence cultural values among international students.

The current study focuses on the linkage between cross-cultural interaction and cultural values. It intends to answer the following question: How do cultural contact, cultural attitudes, and reference groups impact cultural values among international students?

In order to answer the above question, the study uses the case of Chinese students. It attempts to improve our understanding of the process of cross-cultural interactions and the mechanisms of value change, as experienced by Chinese students in the United States. It specifically addresses the following questions: What are the basic situations of cultural contacts between American and Chinese students? What is the impact of cross-cultural interactions on cultural values among Chinese students? What kinds of

interactions have most significant effect on this change? And in which directions do value changes take place as a result of such interactions?

This research proposes a conceptual model of cross-cultural interaction and cultural values. This model is built upon four theoretical perspectives. Firstly, cultural value studies suggest that the existence of different value systems results in intercultural communication and transformation (Martin 1984; Kim and Ruben 1988). Secondly, according to the Cultural Contact Hypothesis (Hull 1978), the more interaction there is between members of different cultures, the more mutually favorable attitudes will develop. Thirdly, the Cross-Cultural Attitude Theory (Berry et al. 1986) states that cultural change is the consequence of continuous contact between two cultures and that attitudes toward cross-cultural relationships are essential for cultural change. Fourthly, the Reference Group Theory (Seigel and Siegel 1957; Brislin 1981) argues that ingroup supports result in cultural maintenance and reference group shift modifies cultural values and attitudes.

Cultural Value Studies

Many scholars have attempted to distinguish different types of values and considered some of the values as more

fundamental than others. For instance, Rockeach (1968) divided the value system into instrumental and terminal values. He believed that terminal values are essential and sometimes function on the instrumental values. Morris (1956) separated desired values from preferred values. Desired values were ideal or should-be conceptions, whereas the preferred value were actual and real alternatives. Kahle (1983, 1986) made a distinction between personal values and interpersonal values and noted the importance of interpersonal relations in value fulfillment and social adaptation. Based on these research, the current study focuses on terminal and interpersonal values.

Many scholars study values from a cross-cultural perspective, largely by comparing the Eastern value system to the Western value system. For example, Parsons and Shils (1951) differentiated modernized and traditional societies as self versus collectivity and universalism versus particularism. Hsu (1985) contrasted collectivism in Eastern societies and individualism in Western societies. Hofstede (1980) posited a four-dimension cultural values in his study in different cultures. These four dimensions included individualism, power distance, uncertainty avoidance, and masculinity. The comparison between Eastern and Western values stimulated the current study.

Previous studies offered different explanations of value change. The Value Change Framework (Martin 1984) maintained that effective intercultural communication depends on the degree of information exchange and mutual understanding between guest and host. Relatedly, the Intercultural Transformation Systems theory (Kim and Ruben 1988) proposed that communication between cultures is a stress-adaptation-growth process. Through this process, individuals go beyond their cognitive, affective, and behavioral limits of their original culture and eventually become intercultural. Finally, several researchers focused on the linkages between values and their cultural environments (e.g., Kluckhohn and Strodtbeck 1961; Hofstede 1980).

Existing literature on Chinese cultural values is of particularly significance to the current study. For instance, Yang (1986) related Chinese cultural value system to China's social structure and its cultural training. He concluded that as the result of Chinese social organization, Chinese values were collectivist in orientation, other-orientation, relationship orientation, and authoritarian orientation. Bond and Hwang (1986) studied Chinese power control and its ideological system. They pointed out the value system was a product of maintaining hierarchical order

and harmonious interpersonal relationships. The Chinese Cultural Connection (1987) developed 40-item instrument-- Chinese Value Survey--based on a pool of Chinese core values (1987). The instrument is used in this study for measuring cultural values, the dependent variable.

Cross-Cultural Contact

Research on cross-cultural studies have mushroomed in recent years. The topics have included sojourners' adjustment, immigrants' experiences, and racial and ethnic relationships.

The early works on sojourners provided the classic concept of "cultural shock" (Church 1982; Furnham 1988; Oberg 1960). While cultural value conflict among different immigrant groups has been studied repeatedly (Triandis 1977; Gudykunst and Kim 1984), cultural contact in racial and ethnic relations has received increasing attention (Park 1950; Allport 1954; Kitano 1974; Williams 1977; Yinger 1981; Yetman 1985; Thomas and Hughes 1986; Sears 1988; Feagin 1991; Marger 1994). Many other studies have focused on the effects of ethnocentrism and discrimination (Triandis 1990; De Vos 1990; Suarez-Orozco 1990; Paige 1990).

Cultural contact is neither a guarantee of favorable attitudes nor of friendly relationships; however, measures

may be taken to improve cross-cultural relations. For example, Allport pointed out that equal status contact between different groups could reduce prejudice (1954). Triandis (1977) and Stephan (1985) suggested that overcoming ignorance of other groups would reduce stereotyping. Amir (1969) and Gudykunst (1977) argued that intimate interaction can break down intergroup barriers. According to Selltitz et al.'s (1963) "the Association Hypothesis", both exposure to other cultures and interpersonal relation can develop favorable relationships. Hull (1978) applied this hypothesis to international students and found that cultural contact with local people can generate more satisfying experiences among these students.

Cross-Cultural Attitudes

Another relevant research theme is that of the influence of intercultural attitudes. For example, Berry's (1980) Acculturation theory suggested that positive attitudes toward other cultures resulted in more cultural change while positive attitudes toward ingroup culture resulted in less cultural value change. Research also suggested that making local friends could help overcome culture shock and facilitate cultural adaptation among international students (Lee 1981; Church 1982; Searle and

Ward 1990). In line with these studies, the current research incorporated cross-cultural attitudes as one independent variable that was postulated to impact cultural values. This variable included two dimensions: (1) the desire to maintain Chinese cultural values and ethnic identity; and (2) the willingness to establish friendship with Americans and adjust to American cultural values.

Reference Group Identification

The concept of reference group has also been related to cultural values. According to Brislin (1982), those who received their ingroup support would maintain their values and beliefs, while those who developed friendship with host nationals and received their support began to modify their values and attitudes. Ogle and Dodder (1987) found that the college environment played an important role in the transmission of values associated with tolerance and reference group shifts. In the current study, reference group identification is a third independent variable related to Chinese students' cultural values. To measure this variable, two items were adopted from Ogle and Dodder's (1987) reference group location scale.

Based on previous literature, the conceptual model proposed in this research consists of multiple independent

variables of cross-cultural interaction and a dependent variable--cultural values. The independent variables include cultural contact, cultural attitudes, and reference group identification. They are the predictors for value change. The cultural contact variable contains two dimensions: information exposure and voluntary social interaction. The cultural attitudes variable composes two dimensions: cultural maintenance and intergroup desirability. The dependent variable is cultural values which are explained by the degree and satisfaction of cross-cultural interactions. Figure 2 presents the model of cross-cultural interaction and cultural values.

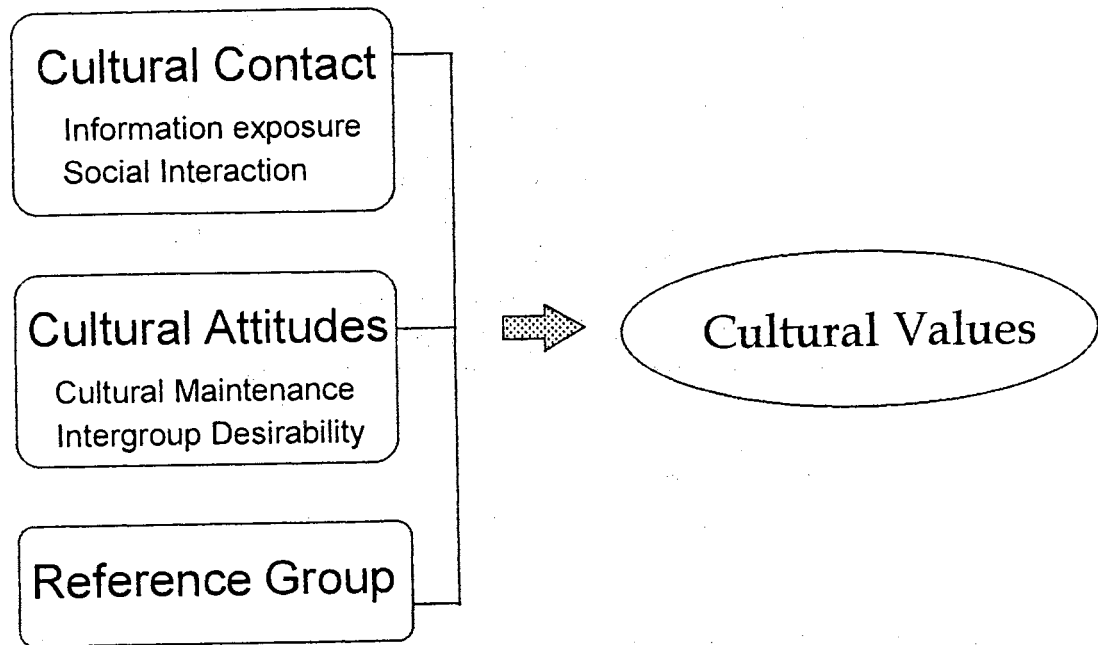
To properly address the research questions, the current study uses two groups of Chinese students: (1) Chinese students who study in China (referred to as Chinese Chinese); and (2) Chinese students who study in the United States (referred to as American Chinese). While the American Chinese are of primary interest, the Chinese Chinese are included as a "quasi" control group with which a major hypothesis is established.

Six major hypotheses are developed in this study.

- (1) American Chinese students have different scores on cultural values compared to Chinese Chinese students;
- (2) the more cultural contact with Americans, the more change

FIGURE 2

CONCEPTUAL MODEL OF CROSS-CULTURAL
INTERACTION AND CULTURAL VALUES



in value scores among American Chinese students; (3) Voluntary social interaction has a greater impact than information exposure on changes in cultural values among American Chinese students; (4) the stronger the attitude toward cultural maintenance, the less likely the value change among American Chinese students; (5) the stronger the intergroup desirability, the more likely the value change among American Chinese students; and (6) among the American Chinese students, those who identify Americans as their reference group have different scores on cultural values compared to those who identify Chinese as their reference group.

Research Design

This research employed a methodological triangulation of both quantitative and qualitative approaches. The two methods used were surveys and in-depth interviews.

A structured questionnaire was administered to the two groups of Chinese college students. Measures used in the survey were adapted from prior research. The dependent variable, cultural values, was measured using "the Chinese Value Survey" (Chinese Cultural Connection 1987). This instrument already had a Chinese version. Since all other measures were available only in English, they were

translated into Chinese in accord with the standard blind translation method (Brislin, Lonner, and Thorndike 1973). The three independent variables--Cultural contact, Cultural values, and Reference group identification--were measured using the Cultural Contact Scale (Klineberg and Hull 1979), Cross-cultural Attitude Scale (Berry et al. 1986), and Reference Group Location Scale (Ogle and Dodder 1978).

In-depth interviews were conducted before and after the questionnaire survey. Prior to the survey, the interviews were used to define the research problems and to refine the survey instruments. After the survey was administered, the interviews helped to obtain a descriptive explanation of the survey results, that is, to make sense of the statistical findings.

As the first step of data analysis, dimensionality and reliability of the measures were examined through factor analysis and Cronbach's alpha. The hypothesis testing involved t-test, ANOVA, simple regression, and multiple regression analysis. In discussing the research findings, information from in-depth interviews were presented along with the results of statistical analysis to provide an integrated interpretation.

Contributions of the Study

The present study attempted to make several contributions. Firstly, a better understanding of cross-cultural interaction-cultural values link has important practical consequences. Paralleled by the increasing number of Chinese students studying in the United States, the desire of American organizations to expand their scope in China as well as in all Asian countries is growing. For instance, with the recent fall-out comes vast business and financial opportunities for Asian countries, U.S. companies have doubled their annual foreign investment over the past four years to a record \$50 billion. Getting acquainted with some Chinese students and other Asian students at local universities is a suggestion for developing long-term relationships with China and other Asian countries.

Typically, these students are smart, energetic, wealthy, and well-connected. They can inform you about current business and economic issues in their home country, connect you to key people, and become your future employees, distributors, partners, or advisors upon their return to Asia (Drobnick 1994, p. 19).

Because of increasing numbers of international students since the 1980s, U.S. universities have become the nation's fifth-largest "exporter" of services, bringing in more than \$6 billion a year in tuition revenues and generating at

least another \$3.6 billion worth of business in university towns across the country (Ruzicka 1994).

Secondly, this study advances our understanding of the cross-cultural interaction process with respect to value changes. For instance, the in-depth interviews indicated that a major barrier to their interaction with Americans was value differences. However, previous literature has largely focused on the sharp contrast of the two value systems of the East and West, with very little attention to the factors that facilitate or impede the intercultural adjustment process.

Thirdly, this study contributes to the research on cross-cultural adjustment of international students. Since Chinese students face more adjustment problems because of their social, cultural, and racial backgrounds, their students' adjustment experience in the U.S. presents a promising opportunity for improving our understanding of the issue of international student adjustment in general. Three groups may benefit from this study: the host institutions which have programs for international students, the countries which send their students abroad, and the international students who seek help with their adjustment to a new environment and readjustment when they go back home.

Lastly, this study represents a serious effort in using both quantitative and qualitative approaches to cross-cultural value research. Unfortunately, most of the previous studies used only one of the two approaches. In light of the issue's complexity, a triangulation strategy will breakthrough the methodological limitation and cross-check the information for reliability and validity.

Outline of the Dissertation

The main body of the dissertation is organized into six chapters. The first chapter introduces the research purpose, structure, practical implications, and potential theoretical contributions. The second chapter reviews previous literature on cultural contact theories, value change frameworks, and Eastern value studies. The third chapter presents a model of cross-cultural interaction and cultural values, and develops hypotheses that link critical variables in the model. The fourth chapter discusses the research design, methods, and instruments used in this research. The fifth chapter examines measurement issues and reports the results of hypothesis testing. The last chapter provides an explanation of the research findings and a discussion of research implications, limitations, and suggestions for future study.

CHAPTER II

LITERATURE REVIEW

This chapter first reviews previous studies of value systems, with a focus on the Chinese value system. Then it introduces four theoretical frameworks that are most relevant to the investigation of value changes and cultural adjustment. These frameworks are the cultural contact hypothesis, the cross-cultural attitude theory, the frameworks of value change, and intercultural transformation proposition. Finally, the limitations of previous research are discussed.

Cultural Values

Multi-Disciplinary Value Studies

Cultural values have received great attention from social psychology, cultural anthropology, sociology, and cross-cultural studies. In spite of the allure of the notion of value as a theoretical variable in behavior analysis, a consensus on its definition has yet to be achieved. Since research on values has been conducted by

people who "differ widely in disciplinary origin, in substantive theoretical interests and modes of investigation" (Inkeles and Levinson 1969, p. 435), it is not surprising to find that the term "value" has been used with many different connotations. The existence of multiple definitions of value is a result of divergent perspectives held by scholars in different research traditions.

Social Psychological Studies. The early attempt of empirical investigation of values started in 1930s by psychologists. Allport and Vernon's book A Study of Values (1931) emerged as the most popular instrument for value studies. On the base of Spranger's Types of Men (1928), six value categories were proposed: theoretical, economic, aesthetic, social, political, and religious (Allport, Vernon and Lindzey 1951). These values were elaborated as follows:

- (1) The theoretical man most values the discovery of truth,
- (2) The economic man most values things of material utility,
- (3) The aesthetic man most values beauty and harmony, (4)

The social man most values altruistic and philanthropic love, (5) The political man most values power and influence, and (6) The religious man most values unity.

The psychological instrument conceives of values as personal goals or interests rather than as moral imperatives. However, "it has received widespread,

sometimes uncritical usage" (Dukes 1955). Influenced by this study, psychologists have tended to focus on more narrowly circumscribed constructs such as attitudes, motives, valences, and cathexes (Robinson and Shaver 1970).

Morris proposed a survey scale Ways to Live (1956). The scale consists of 13 paragraphs describing different notions of what is good in life. It includes values concerning what is desired as well as what should be preferred. Four dimensions are elaborated from this instrument: (1) operative value (actual preferences among real alternatives, (2) conceived values (ideal conceptions of what should be or actual choices that people feel ought to be made), (3) object values (means-end relationships), and (4) behavior value (operative values are studied by observing preferential behavior). This instrument has been used among college students in the United States, China, and many other countries. It is particularly useful in comparing value differences in cross-cultural research.

The later influential psychological conception of values is proposed by Rokeach. Rokeach's Value Survey in Beliefs, Attitudes and Values (1968) distinguishes instrumental values (means) and terminal values (ends). Instrumental values refer to preferable modes of conduct, while terminal values refer to preferable end states of

existence. Subjects are instructed to rank order the values in terms of their importance as guiding principles. Rokeach finds that terminal values are most central or inclusive and sometimes function as means to attain other values. He suggests that change may be induced by exposing an individual to the states of inconsistency already existing in his own value system.

Social psychologists Inkeles and Levinson (1969) propose three standard analytic issues for the comparative study of cultural values. The question which interested them is:

to what extent do the patterned conditions of life in a particular society give rise to certain distinctive patterns in the personalities of its members? (p. 418)

The standard analytic issues chosen are based on two criteria: one is universal to human societies and the other is functional significance for both the individual and the social system. They believe that the model personality may be described in terms of one or a few primary dilemmas such as those proposed by Erikson (1950) in his formulation of stages in ego development. To the extent that the dilemma remains unresolved, it has various consequences for the individual's further characteristics.

Anthropological Studies. In addition to this early attempt to characterize human values in psychology,

anthropologists have made major contributions in the conceptualization of values by examining cultural patterns and life styles. Kluckhohn (1951) views values as shared by a group of people and asserting fundamental influences on human behavior. He defines a value as:

.... a conception explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of action (p. 395).

According to this definition, cultural values comprehensively consist of patterns of thinking, feeling, and the results of behavior which condition further behavior. Based on the assumption that people in all cultures have to face the same fundamental problems and so must develop normative and preferential ways to deal with these problems, Kluckhohn and Strodtbeck (1961) examine value-orientations as patterned principles. They define value-orientations as:

Complex but definitely patterned (rank-ordered) principles, resulting from the transactional interplay of the analytically distinguishable elements of the evaluative process--the cognitive, the affective and the directive elements--which give order and direction to the ever-flowing stream of human acts and thoughts as these related to the solution of 'common human problems' (p. 4).

Kluckhohn and Strodtbeck propose a cross-cultural interview questionnaire which attempt to capture five dimensions of value-orientation: (1) relationship between

man and nature, which have three alternatives: subjugation to nature, harmony with nature, mastery over nature, (2) innate human nature, which is assumed to be good, bad, or neither, and mutable or immutable, (3) relationship between humans, which differs from lineal, collateral, and individualistic goals, (4) temporal focus of human life, which represented by past, present, and future, and (5) modality of human activity, which emphasizes being, being-in-becoming, and doing. These five dimensional questionnaire was the beginning of combining the insights of psychologists, sociologists, and anthropologists. They also conducted empirical investigations among five different rural and cultural communities of the American Southwest and stated that it is possible to study the value orientation of a culture through the testing of individuals.

Sociological Studies. Sociologists have also devoted attention to studying values. Among the earliest efforts, Durkheim (1964, orig. 1895) points out that people have very different values in mechanical solidarity and organic solidarity. Based on the concepts from Toennies and Gesellschaft (1963, orig. 1887), Durkheim views values in mechanical solidarity life as socially bonded on collective activities and conformity to traditions, but values in organic solidarity society are determined by specialization

and distinctive interests. Simmel (1964, orig. 1918) offers a micro-analysis of values in modern urban society, in which he explains people develop "a blase attitude". With this attitude, people stand aloof from most others so that can devote their time and energy to those who really matter. Wirth (1938) argues that modern society yields a distinctive way of life that is impersonal, superficial, transitory, and self-interested. People in this society may pleasantly exchange greetings, but friendship is not the reason for their interaction.

Parsons and Shils (1951) provide a more elaborate version of the theory of values. Their analysis of the social system is based on a classification scheme of value orientation pattern. The "pattern variables" are determinants of all "human action" in this system. A pattern variable is defined as:

a dichotomy, one side of which must be chosen by an actor before the meaning of a situation is determined for him and thus before he can act with respect to that situation (p. 77).

They provide five patterns of variables of cultural values: affectivity versus affective neutrality, self-orientation versus collectivity-orientation, universalism versus particularism, ascription versus achievement, and specificity versus diffuseness. These variables are postulated as choices present at the individual level

(personality), the social system level (group), and the cultural level (normative). For instance, concerning the dilemma of gratification of impulse versus disciplines, affectivity can be exhibited as a need disposition, a role-expectation, or a normative pattern in terms of taking advantage of a given opportunity for immediate gratification without regard to evaluative considerations (p. 80). A major effort is thus made to integrate the cultural, the social, and the individual level of analysis into a general theory of the social system based on the value-orientation pattern variables.

Parsons (Parsons and Shils 1951) combines value-orientation pattern variables with differences of achievement and ascription and compares different cultural value-orientations (p. 102). The Universalistic Achievement Pattern represents the American ethos and its philosophy of pragmatism. The Universalistic Ascription Pattern represents the idealist philosophic writing as found in the German cultural ideal. The Particularistic Achievement Pattern reflects the classical Chinese cultural pattern, as exemplified by Confucianism. The Particularistic Ascription Pattern approximates the Spanish-American culture.

Parsons' pattern variables is applied by Lipset (1963) to comparative analysis of the United States, Australia,

Canada, and England. He finds that the United States emphasizes achievement, egalitarianism, universalism, and specificity. Canada is lower than the United States on all these dimensions. England is even lower than Canada. Australia, however, was found more egalitarian but less achievement-oriented, universalistic, and specific.

Despite these studies conducted from a cross-cultural perspective, most American sociologists emphasize within-culture value variations rather than between-culture comparisons. Parsons (1949) provides a well known description of values associated with age and sex roles in American society. He follows the German traditional method of *Verstehen* (thorough understanding of phenomena) rather than field work. Different from Kluckhohn's attribution to Americans of a "good time ideology", Parsons distinguishes the good time ideology of the youth culture from the dominant American adult value of achievement in the professions and business community. Kluckhohn's finding is based on anthropological traditional methods of field work by the observation of natural behavior. The conclusion of American good time ideology is based on high expenditures for alcoholic beverages, theater and movie tickets, tobacco, cosmetics, and jewelry. The advantage of Parsons' sociological perspective is to provide a "thorough

understanding" of the value phenomenon in the United States.

Williams (1970) contributes to value studies by looking at the American value system systematically. He first defines

values as:

standards by which members of a culture define what is desirable or undesirable, good or bad, beautiful or ugly (p. 27).

Although America is a nation of immigrants, Williams suggests that there are some core values shared by Americans: equal opportunity, achievement and success, material comfort, practicality and efficiency, progress, freedom, and racism and group superiority. However, other researchers find contradictions among American values (Lynd 1967; Bellah et al. 1985).

Social value research is also conducted through empirical studies. For instance, Perloe's Social Values Questionnaire (1967) is designed to study the impact of varying kinds of college environments on students' orientations relevant to participate in a democratic society. This study is interested in two aspects: social responsibility and participation in secondary groups. It generates four factors: (1) the acceptance of a moral obligation to protect and promote the welfare of others outside one's primary group, (2) cooperation and conformity in secondary groups in order to help groups accomplish their

purposes, (3) the value and necessary for proper personal development, of becoming deeply involved and identified with some group, and (4) the extent to which an individual should be concerned with another person's morals. Perloe's Social Value Questionnaire has been employed with several groups over time. It provides longitudinal studies of value change in college students.

Cross-Cultural Studies. Value studies are also of interest of organizational behavior sciences (Kahle 1983, 1986; Kahle, Poulos and Sukhdial 1988; Kahle, Liu and Watkins 1992; Hofstede 1980). Kahle enhances value studies by relating value fulfillment to interpersonal relations as well as to personal factors and apersonal factors. In the List of Values (Kahle 1983), nine basic values are proposed which can be grouped into three categories. The first category is Interpersonal Relations which include three items of sense of belonging, warm relationships with others, and being well respected. The second category is Personal Factors which include three items of self-fulfillment, self-respect, and a sense of accomplishment. The last category is Apersonal Factors which also includes three items: fun and enjoyment of life, security, and excitement. The List of Values measures those values that are central to people's lives. It notes the importance of interpersonal relations

in value fulfillment as well as personal factors and apersonal factors.

Values are usually organized along certain orientations into an interrelated system. A value system is formed and reinforced by a particular cultural environment. Because of different cultural environments, value systems vary across nations or societies. Value differences have been generally recognized and demonstrated through cross-cultural research (Hofstede 1980; CCC 1987). Hofstede (1980) in his work Culture's Consequences defines value as:

the collective programming of the mind which distinguishes the members of one human group from another (p. 25).

Hofstede has brought an important progress in the area of value studies based on his research project across 53 countries. He identifies four main dimensions along which dominant value systems can be ordered and which affect human thinking and organizations in predictable ways. Specifically, Power Distance describes the relationship between superior and subordinated in a hierarchy; Individualism versus Collectivism is a measure of individuals' relations to group or organization; Uncertainty Avoidance concerns the extent to which a person feels comfortable in an unstructured situation; and finally Masculinity versus Femininity deals with genders' role in

organizations.

A more recent effort was made by the Chinese Cultural Connection (1987) to identify some "culture-free" value dimensions. To develop an initial item pool, a number of Chinese social scientists were asked to prepare a list of basic values for Chinese people. The resultant 40-item "Chinese Value Survey" was administered to college students in a variety of disciplines in 22 countries. A statistical analysis of the survey results yielded four value factors with 28 items. Three factors were shown to have significant correlations with three dimensions of Hofstede's (1980). The first dimension integration indicates a strong familial bonding, which is correlated to Hofstede's dimension of individualism vs collectivism. The next dimension human-heartedness suggests a gentleness and compassion, which is correlated to Hofstede's dimension of masculinity vs, femininity. The third dimension moral discipline represents a firm and disciplined stanc, which is correlated to Hofstede's power distance. The only one dimension of uncertainty avoidance is missed in Hofstede's, but there is a new dimension of Confucian work dynamism in the Chinese Value Survey.

Bond (1988) extends this attempt to find universal dimensions of individual variation in multicultural studies

of values by comparing the Chinese Value Survey to Rokeach's Value Survey. In a study of 21 countries with 33 women and 33 men, two factors emerged from the 40-item Chinese Value Survey questionnaire. These two factors are named Social Integration and Cultural Inwardness and Reputation vs. Social Morality.

As "the first study" to assess empirically the impact of value discrepancies on sojourner adjustment, Ward and Searle (1991) applied the Chinese Value Survey to sojourners from 42 countries in New Zealand. The result does not support the popular contention that differences in values between sojourners and hosts are responsible for adjustment difficulties during cross-cultural transitions (Segall 1979; Furnham and Bochner 1986). Their explanation is that values may be too vague, broad, and global to be good predictors. Another reason could be that the link between values and behaviors is more tenuous than speculated. Their research suggests a need to assess the impact of value discrepancies on sojourner adjustment (p. 219).

The differences between Eastern and Western value systems have been especially discussed in previous research (Hall 1976; Triandis 1977, 1980, 1986; Triandis, Brislin, and Hui 1988; Gudykunst and Kim 1984; Bond and Hwang 1986; Yang 1986; Hui 1990). A salient example is the distinction

between individualism and collectivism. Collectivism concerns the relationship between the individual and the group (Gudykunst 1988; Ting-Toomey 1988). Depending on whether people belong to a collectivist culture or its antithesis, an individualistic culture, they will exhibit variance in terms of sense of interdependency, attitude toward group goals, and concerns with harmonious relations.

In conclusion, different scholars provide different value definitions and analyze values with different dimensions relevant to the current concerns of cultural adjustment. Although individualism/collectivism has been treated as the dimension that best distinguishes cultural value systems, there are other cultural dimensions that influence cultural adjustment. As demonstrated in prior studies, a meaningful approach in research of cultural values is to identify each of these underlying value dimensions that exist across different cultures (Hofstede 1980). Enumerated by Kluckhohn and Strodtbeck (1961), this approach is built on the following assumptions:

1. There are a limited number of common human problems for which all peoples at all times must find solution.
2. There are a limited number of alternatives which exist for dealing with these problems.
3. All alternatives are present in all societies at all times, but they are differentially preferred.
4. Each society has a dominant profile of value orientations and in addition has numerous variant or substitute profiles.

5. In both dominant and variant profiles there is a rank-ordering of preference for alternatives (p. 10).

Chinese Cultural Value Studies

Chinese cultural values as the representative of the Eastern value system and its long-lasting consistency in the Chinese history have attracted the attention of several generations of academicians. Recent observations indicate that this value system is rooted in agricultural society and hierarchical interpersonal relationships. Even with rapid industrialization and urbanization, some of the core values, especially those relations-oriented values, remain the same in most Chinese cultural countries despite differences in economic development rates. It seems that pure economic conditions may be insufficient to bring fundamental changes in a cultural value system. Cultural contacts between East and West, however, may be more powerful in leading to such a change.

The Chinese value system is social relations oriented. From a cultural-ecological view, traditional Asian social structure and Asian socialization practices determine the Eastern value orientation. According to Yang (1986), the basic characteristics of traditional Chinese social structure are hierarchical organization, collectivistic

functioning, generalized familization, structural tightness, and social homogeneity. The fundamental Chinese socialization practices are dependency training, conformity training, modesty training, self-suppression training, self-contentment training, punishment preference, shaming strategy, parent-centeredness, and multiple parenting. As a result of Chinese social structure and socialization practices, Chinese values are collectivistic orientation, other-orientation, relationship orientation, authoritarian orientation, submissive disposition, inhibited disposition, and effeminate disposition.

Bond and Hwang (1986) write that the Chinese value characters evolve from an agricultural society. In that society the major social resources are controlled by a few powerful figures, and the ideological system encourages individuals to maintain hierarchical order and harmonious interpersonal relationships in a relatively stable and permanent social fabric.

Empirical studies have also been conducted among Chinese people, especially Chinese college students. These studies were mainly focused on Chinese cultural values and value change in relation to social economic conditions. Some of these empirical studies employ previously established tools of value examinations. These include

Allport, Vernon, and Lindzey's Study of Value (1951),
Morris' Ways to Live (1956), Rokeach's Value Survey (1968),
and Hofstede's Work Related Value Survey (1980).

Allport, Vernon, and Lindzey's Study of Value (1951) was first administered in a Chinese version among Chinese (525 in China and 765 in Taiwan) in 1959 by Rodd. The data were then used to compare Chinese with Americans and Japanese. This research found that the two Chinese groups were closely alike and differed from Americans and Japanese in their value patterns. In general, Chinese tended to show a high interest in theoretical, political, and religious values and a low interest in the social, economic, and aesthetic values. In contrast, the stronger values for Americans were the economic, political, and religious while the weaker values were aesthetic, social, and theoretical. In 1964, Li and Yang used a Chinese version of this scale among 306 university students in Taiwan. This survey found that the young Chinese placed a higher value on theoretical, aesthetic, and social but a lower value on political, economic, and religious. In 1966, Chiu used the same version and surveyed 1,075 students in Taiwan and found them to be relatively high on theoretical, aesthetic, and political while low on social, economic, and religious. In 1984, Lei and Yang reported their data from 905 university

students, indicating higher scores on theoretical, aesthetic, and political but low scores on social, economic, and religious. In the same year, Wu found a identical pattern from a large sample of 2,250 college students (Yang 1986). To summarize these surveys, theoretical values are among the highest and economic among the lowest in all studies. In addition, aesthetic values were among the highest and religious among the lowest in all studies except Rodd's.

The Chinese version of Morris' Ways to Live (1956) scale administered n 743 Chinese college and high school students in mainland China in 1948. Some of the items rated highest among Chinese students were "act and enjoy life through group participation", "constantly master changing conditions", and "show sympathetic concern for others". The same instrument was administered in English among American, Chinese (graduate students), and Indian students in the United State by Singh, Huang, and Thompson in 1962. Interestingly, the survey found that these three items were still highest among Chinese students and found a fourth item --"preserve the best that man has attained"--highly endorsed as well.

A Chinese version of Rokeach's Value Survey (1968) was utilized to survey values among Chinese students in Taiwan

by Appleton in 1970 (N=1,149), Grichting in 1971 (N=1,874), Wang in 1981 (N=5,971), and by CEP in 1983 (N=5,466). A similar pattern of values is obtained in the four studies: all terminal values emphasize collective welfare and social concern and de-emphasize sensuous enjoyment and personal feeling in one's life; most instrumental values place social and moral values higher than personal and competence values with an exception of the CEP study, in which social and personal values are mixed (Yang 1986).

The investigation using Hofstede's Work-Related Value Survey (1980) in mainland China reported results closely corresponding with three other groups--Hong Kong, Singapore, and Taiwan--on the two dimensions of individualism and power distance (Chong, Cragin and Scherling 1983). However, the later three regions are more industrialized and more prosperous than mainland China. Therefore, Bond and Hwang (1986) suggest that certain fundamental Chinese values have remained intact throughout this modernization process.

The above studies among Chinese students provides a dominant profile of value orientations consisting of inner development, individualism, future perspective, and mastery over nature compared with traditional Chinese value orientations. However, there is still a tendency to stress collective welfare, social concern, and personal morals and

to de-emphasize personal enjoyment and feelings.

If the basic Chinese values remain fundamentally the same when social economic situations change, does it mean that these values are stable and unchangeable--even if social economic environment change takes place? What happens when people leave their social relationships and move to another culture? Do they still keep the same values? The question then arises if the Chinese value system is still intact when social relationships change? In other words, if we believe that a value system is determined by the cultural environment, can we hypothesize that when this particular environment changes, the value orientation will change accordingly? Specifically, when people make contact with others who belong to a different value system, do they still hold the same values in their old relationships but not for the relationships in the new cultural system?

Some research has been conducted among Chinese immigrants. The problem is that although these immigrants entered into American society, they immediately merged into or later reemerged into communities of their countrymen. Most business is done within the communities and, more than often, the common languages used are their country languages. Face-to-face interactions with the host society

are then limited to a minimum.

Students' situations are different from immigration in several aspects. Firstly, the purpose of students coming to the U.S. is different. Learning is a primary purpose for students. Besides academic learning, cultural learning is one of the most important goals for the majority of students. Secondly, the relationship with the host is different. When Chinese students study with professors and other students in universities, interactions take place. In order to be successful in academic settings, students are forced to interact with the host culture and society. Even when some students try to minimize their contacts with host people, they can not totally avoid interaction. Thirdly, the characteristics of students are different. Students are comparatively homogeneous in terms of age and educational level.

Value Change Frameworks

A very general framework of value change can be derived from Berger and Luckmann's concept of social construction of reality (1966). According to this framework, reality is created through a dialectical process. Since reality is socially constructed, when people move to a new social environment and interact with a new group of people, their

reality will be shifted. In the process of interaction and internalization, people will recreate their social reality.

Contemporary sociologists consider culture as a part of environment rather than as an internalized feature. From symbolic interactionist's point of view, Blumer (1969) argues that values are important only in so far as people enter into the process of interaction and definition. Therefore, values should not be involved as causes of social behavior, but should be seen as an emergent product of social interaction. Blum states that

to seek to encompass, analyze and understand the life of a society on the assumption that the existence of a society depends on the sharing of values can lead to strained treatment, gross misrepresentation, and faulty lines of interpretation (p. 76).

As an ethnomethodologist, Garfinkel (1967) underlines the difficulty to the observer of knowing how actors perceive what the proper role expectations are and of deciding the link between Ego and Alter perspectives. He proposes the search for "interpretative" procedures as the base for understanding emerging values in society.

In the field of cross-cultural studies, previous research suggests that involvement in a new culture and interaction with the new culture can result in value change. There are three specific conceptual frameworks regarding to value change in the process of cultural contact. The first

one views the value change as operant conditioning and social learning principles (David 1972, 1976; Church 1982). The second one views value change as a result of effective intercultural communication (Adler 1975). The third one regards value change as a process of intercultural transformation (Kim and Ruben 1988).

Social Learning Principle. David (1972, 1976) explains value change from a behavioral view. He argues that culture shock and other problems of cross-cultural adjustment are consequences of punishment found in the new host culture. According to David, punishment consists of both a removed reinforcement and an aversive stimulus. The removed reinforcement is what sojourners are accustomed to in their home culture. The aversive stimulus is the result of sojourners' lack of cultural knowledge in the new cultural environment. Sojourners often feel punished by missing familiar contacts and activities and by confusing interactions in the new countries. Therefore, a logical solution to this problem is that sojourners should learn the stimulus cues of the new culture in order to avoid aversive stimuli and should transfer the reinforcers from their previous culture and develop new reinforcers in their new cultural environment. Cultural value change then would be the result of this solution.

Church (1982) represents the first approach of operant conditioning and social learning. He states:

Sojourner adjustment is interpreted in terms of the removal of positive reinforcements and the presentation of aversive stimuli. Being placed in a new culture results in new reinforcers, new discriminative and aversive stimuli and changes in response-reinforcement contingencies (p. 543).

Therefore people living in different cultures will transfer or develop new reinforcers to fit into new cultures and to avoid punishment. According to this approach, both information exposure (mass media exposure and task-related activities) and social interaction with Americans can be taken as important sources of social learning and operant conditioning.

Intercultural Communication Perspective. Adler provides another perspective about value change as a consequence of intercultural communication. This perspective is an integrating framework in which change and awareness of change in communication is understood as a result of intercultural experience. Adler (1975) described five phases of encompassing and progressive changes in identity and experiential learning in intercultural communication. The five phases are summarized by Kim and Ruben (1988) as:

1. A contact phase characterized by excitement and euphoria during which the individual views the new

- environment ethnocentrically.
2. A disintegration phase marked by confusion, alienation, and depression during which cultural differences become increasingly noticeable.
 3. A reintegration phase characterized by strong rejection of the second culture, defensive projection of personal difficulties, and an existential choice to either regress to earlier phases or to move closer to resolution and personal growth.
 4. An autonomy stage marked by increasing understanding of the host culture along with a feeling of competence.
 5. A final independence stage marked by a cherishing of cultural differences and relativism, creative behavior, and increased self and cultural awareness (p. 304).

Adler (1975) exemplifies the view of the phenomenologist and views "culture shock" as a "transitional experience". Culture shock does not have to be viewed as an illness or a negative experience, and it can offer significant potential for cultural learning and personal growth. Adler suggests that the confusion and discomfort of early culture shock are due to the disintegration of the personality under pressure, reintegration of the personality begins with the rejection of the host culture, but as the person becomes more autonomous, he or she gains a rising sensitivity and understanding of the host culture. Finally, the fully integrated person accepts the self and both cultures. Thus culture shock is a transition to a wiser, more aware person. Adler's model of cultural learning contributes significantly to the understanding of the

positive side of intercultural communication experiences.

Adler (1982) uses the term "multicultural" to describe the internal capacities of people who successfully adapt to a second culture and yet remain their own cultural identities. He states:

The identity of multicultural man [woman] is based, not on 'belongingness' which implies either owning or being owned by culture, but on a style of self-consciousness that is capable of negotiating ever new formations of reality. In this sense multicultural man [woman] is a radical departure from the kinds of identities found in both traditional and mass societies. He [she] is neither totally a part of nor totally apart from his [her] culture; he [she] lives, instead, on the boundary (p. 319).

Intercultural Transformation Theory. Kim and Ruben (1988) develops Adler's perspective and redefine the concept of intercultural communication. They view intercultural communication as a communication process that takes place in circumstances in which communicators' patterns of verbal and nonverbal information are encoded (received, processed, and transformed) and decoded (expressed) can be significantly different because of cultural differences. In discussing intercultural communication, they are primarily concerned with situations of direct, face-to-face encounters between individuals of differing cultural backgrounds. Based on culture shock phenomenon and cultural learning adaptations, they provide a systems theory of Intercultural

Transformation. According to this theory, the definition of intercultural transformation can be summarized as the follows (Kim and Ruben 1988):

Intercultural transformation refers to the process of change in individuals beyond the cognitive, affective, and behavioral limits of their original culture (p. 306).

The intercultural transformation is a process of stress, adaptation, and growth. In this process, an individual transcends any given cultural group and becomes intercultural. In other words, the individual has expanded his/her internal capacities to function in the changing environment.

Another consequence of intercultural experiences and adaptive change, according to Kim and Ruben (1988), is a cognitive structure that enables a broadened and deepened understanding of human conditions and cultural differences and a view of things that are larger than any one cultural perspective (p. 314).

In order to present their systems theory of intercultural transformation, Kim and Ruben (1988) discuss seven assumptions, following the theory building methodological principles set forth by Dubin (1969). These assumptions are:

1. A person is an open communication system that interacts with the environment through input and output of information.

2. A person has an inherent homeostatic drive to maintain his or her internal equilibrium.
3. A person's internal equilibrium is disturbed when the person environment symmetry is broken.
4. When internal equilibrium is disturbed, a person experiences stress.
5. Most individuals are capable of reducing stress and regaining internal equilibrium by adapting to a changed environment.
6. Stress and growth are inseparable as aspects of adaptation--both are necessary to define the nature of a person's internal growth.
7. The internal growth of a person facilitates his or her subsequent adaptability (p. 308-309).

Applying these principles of human systems to situations of intercultural communication, Kim and Ruben present five Axioms. They are:

1. Intercultural communication experiences are inherently stressful, in varying degrees, owing to participants' cultural differences.
2. The stress of intercultural communication experiences facilitates participants' adaptation.
3. An outcome of intercultural stress-adaptation experiences is an intercultural transformation in internal conditions.
4. Intercultural transformation is reflected in an increased cognitive, affective, and behavioral capacity.
5. The increased cognitive, affective, and behavior capacity, reduces the amount of stress in subsequent intercultural communication experiences (p. 315).

These five axioms are five steps in the process of becoming an intercultural person. Through this process, a person achieves the maximum capacity to communicate with individuals who are significantly different in cultural backgrounds and are able to make deliberated choices of actions in specific situations rather than simply being

dictated by the normative courses of action in a given culture.

Based on the five axioms, Kim and Ruben also explicate seven specific propositions for empirical testing. These propositions are:

1. The more cultural differences between individuals in an intercultural communication situation, the more stress they are likely to experience.
2. The more stress individuals experience in intercultural communication situations, the more intercultural transformations are likely to take place in them.
3. As individuals become increasingly intercultural, their cultural identity becomes increasingly flexible.
4. As individuals become increasingly intercultural, their cognitive capacity to understand cultural differences increases.
5. As individuals become increasingly intercultural, their affective capacity to affirm and participate in the experiences of culturally different individuals is likely to increase.
6. As individuals become increasingly intercultural, their behavioral flexibility to manage cultural differences increases.
7. As individuals become increasingly intercultural, the level of stress in their intercultural communication experiences decrease (p. 315-16).

The systems theory of intercultural transformation focuses on the stress-adaptation-growth dynamic of intercultural communication experiences. It focuses on profound human pliability and resilience. This theory contributes greatly in understanding the process of intercultural communication and the adaptive change as a reaction of the process.

There is also a number of studies of intercultural communication which emphasizes both sides of communicators. It is argued that effective intercultural communication depends on the degree to which a flow of information and mutual understanding is exchanged between the guest and host (Martin 1984). According to this perspective, for instance, face-to-face interaction with Americans will be more essential for value change among Chinese students.

Cross-Cultural Interaction

International Students

International students are sojourners in the United States. A sojourn is defined as a temporary stay (six months to five years) with specific motives in a new environment (Furnham 1988). For sojourners, studying abroad is not only a temporary stay in a new residence across some geo-political boundary but also a change in social affiliation. From the perspective of individuals, the change involves the tearing up of old roots--self-concept and way of life--and the setting down of new roots--resocialization and reaffiliation. Because sojourners generally are without permanent social supports as most immigrants are, students may suffer more from cultural conflicts and adjustment problems (Church 1982; Furnham

1988) and experience more health problems than those more permanently settled and established (Berry 1990). However, this situation may force the students to have more contacts with host people and culture.

Previous research has demonstrated some cultural features related to international students' adjustment. For instance, sojourners' primarily experience culture shock (Oberg 1960; Gullahorn and Gullahorn 1963; Hall 1959, 1976; Ruben and Kealey 1979; Adler 1975; Befus 1988; Henderson et al. 1993), value differences (Triandis 1972; Gudykunst and Kim 1984; Furnham and Alibhai 1985), ethnocentrism and discrimination (Triandis 1990; De Vos 1990; Suarez-Orozco 1990; Paige 1990).

Oberg's work (1960) represents an anthropological perspective of cultural contact and cultural adaptation.

Oberg outlines four stages of cultural adjustment:

1. The honeymoon stage. In this stage, the individual is fascinated by the endogenous culture and cultural contact is superficial.
2. The rejection stage. This stage is characterized with hostile and aggressive attitudes to the new culture, minimum cultural contact and adjustment, and intense conflict.
3. The tolerance stage. This stage is characterized with the acquisition of social cultural skills and knowledge. Cultural contact and adjustment increase and conflict begins to lose intensity.
4. The integration stage. In this stage, cultural adjustment is generally adequate. The individual has confidence in his/her ability to function in the new culture (p. 178-79).

Culture shock, in the anthropological approach, is explained as occurring due to sojourners' lack of cultural awareness. In this approach, Hall (1976) particularly focuses on increasing cultural awareness. While increasing sojourners' cultural awareness is found helpful, it is also found to be insufficient. Some other stressors inherent in cultural shock are found to affect sojourners' adjustment as well (Befus 1988).

A more recent study on culture shock by Befus (1988) provides a multilevel explanation for culture shock. In this explanation, culture shock is defined as:

that period of transition and adjustment during which a person who has been relocated experiences some degree of anxiety, confusion, and disruption related to living in the new culture (p. 381).

Here cultural shock is viewed as an adjustment reaction syndrome which affects sojourners intellectually, emotionally, behaviorally, and physiologically.

Suarez-Orozco (1990) organizes cross-cultural personal contact into two large behavior groups, each having five emic categories. Expressive behavior includes pleasure-suffering, nurturance-deprivation, affiliation-separation, harmony-discord, and appreciation-degradation. Instrumental behavior contains control-submission, cooperation-competition, responsibility-profligacy, competence-failure, and achievement-alienation (p. 27). Among all the

interactional categories, some are defined as occurring in reciprocal, essentially horizontally perceived relationships, whereas others are between individuals in vertical relationships of unequal status. Some of them are instrument-goal oriented perceptual categories, whereas others are expressive-feeling oriented categories. While equal status interaction is thought to produce positive feelings and activities, unequal status results in negative feelings and relationships.

Cultural Contact

The importance of cross-cultural contact has been long recognized. However, contact between groups itself does not necessarily lead to improved intergroup relations (Stephan and Stephan 1985). Contact can lead one into either a positive or a negative direction. The difficulties of social contact may be caused by prejudice. Therefore, examining theories about prejudice may enhance our understanding of social contact hypotheses.

Among the many theories about prejudice are Cultural Transmission theory, Personal Traits theory, and Group Identification theories. Cultural Transmission theory assumes that people are socialized in a certain environments where prejudice is learned as "shared beliefs" (McLemore

1991). Personal Traits theory suggests that a person who is frustrated in some way is likely to vent his/her anger in an aggressive action (Baron 1977). Group Identification theories takes the sense of "in-group", we-group" and ethnocentrism as natural sentiment (McLemore 1991).

Blau's Macrostructuralism (1987, 1989) provides interpretation of structural effects from social contact between different social groups. Blau identifies two kinds of parameters (demographic variables) and discusses their influence on equality. Nominal parameters deal with heterogeneity while graduated parameters deal with inequality. Heterogeneity may create barriers to social intercourse between groups, but inequality is the major barrier for social interaction. According to Blau's macrostructuralist theory, there are three basic theorems in relation to social contact:

1. Ingroup associations are more prevalent than outgroup association.
2. Social associations depend upon opportunities for social contact.
3. The prevalence of associations with increasing status distance.

According to these theorems, people tend to associate with their own group rather than with other groups.

Opportunities as structural factors effect social contact.

Status differences between groups limit social contact.

Cross-cultural contact itself is neither a guarantee of

favorable relationships nor a precursor of an attitude change. However, previous research points out that there are some types of contact which should improve intergroup relationships. For instance, Allport's Theory of Contact (1954) suggests that equal status contact can reduce prejudice. Triandis (1976) and Stephan (1985) suggest that overcoming ignorance about ethnic outgroups can reduce prejudice or stereotypes. Other researchers argue that intimate interaction could break down the barriers of outgroup interaction so that friendship and attraction could be developed (Amir 1969; Amir and Garti 1977; Gudykunst 1977).

Allport's Theory of Contact (1954) states that prejudice may be reduced by equal status contact between majority and minority groups in the pursuit of common goals:

Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal-status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom, or local atmosphere), and if it is of the sort that leads to the perception of common interests and common humanity between members of the two groups (p. 267).

However, Allport realizes the difficulties of achieving equal-status contact. In addition to the theoretical statement, he provides six elements which are essential to the contact situation:

1. the numerical proportions of the two group,
2. the degree to which correspond to the negative stereotypes of the majority,
3. the possession of valued traits by members of each group,
4. similarity in beliefs between members of the two groups,
5. the acquaintance potential of the situation,
6. physical proximity.

In addition to the different situations of contact, Allport also discusses five degrees of social contact: (1) causal contact, (2) acquaintance contact, (3) residential contact, (4) occupational contact, and (5) intimate contact.

Related to Allport's different degrees of social contact, some researchers argue that only intimate interaction between different groups, in contrast to casual contact, could break down the barriers of outgroup interaction. Friendship and attraction due to similarity can then be developed (Amir 1969; Amir and Garti 1977; Gudykunst 1977). Some other researchers suggest that overcoming ignorance of ethnic outgroups could reduce prejudice or stereotypes (Triandis 1977; Stephan 1985).

The confrontation between one's old attitudes and new friendships is one of the experiences shared by virtually all people who engage in cross-cultural settings. The intense experience of having old views challenged, not by the arguments of others but by one's actions, can be very uncomfortable. However, coupled with a growing awareness of

the basic decency of out-group members, the intergroup interaction can become a major event in people's lives (Brislin 1982).

The positive outcome of social contact is demonstrated in research on international students (Church 1982; Searle and Ward 1990). It is found that those students who are satisfied and comfortable with their interactions with local people and the local culture during their sojourn report broader and more general satisfaction with their total sojourn experience both academically and non-academically.

Contact is a complex variable which is generalized as both a positive and negative experience for the students. However, generally speaking, the more contact there is with local people, the more satisfying the overall sojourn experience is likely to be (Klineberg and Hull 1979).

A Modified Culture Contact Hypothesis by Hull (1978) suggests that the more interaction there is between members of different cultures, the more mutually favorable attitude will develop. This hypothesis is based upon the "Association Hypothesis" (Selltitz et al. 1963; Ibrahim 1970; Basu and Ames 1970; Chang 1973). "Association" refers to exposure to the foreign culture primarily through interpersonal relations but also through secondary encounters with such culture.

Cultural Attitudes

Cross-cultural attitudes is discussed in Acculturation theory (Berry 1980; Berry et al. 1986). This theory conceptualizes cultural change as the consequence of continuous contact between culture A (dominate culture) and Culture B (culture under influence). Attitudes toward cross-cultural relations are considered to be important. If ingroup (B) attitudes are very positive and outgroup (A) attitudes are very negative, then acculturative influences are more likely to be screened out, resisted, rejected, or otherwise rendered less effective. On the other hand, if the reverse attitude pattern is prevalent among individuals in Culture B, then acculturative influences are more likely to be accepted. Berry and associates therefore frame four types of acculturation according to interaction between two cultures: integration, assimilation, separation, and marginalization.

Acculturation theory has been applied by researchers to issues of mental health (Berry et al. 1987; Berry and Kim 1988), identity transition (Mehta and Belk 1991), and consumer acculturation (Penaloza 1989; Jun et al 1993). Since acculturation theory essentially focuses on cultural distance between Eastern and Western countries, it is appropriate for explaining Chinese students' experiences.

Previous literature on sojourners indicates that cultural distance has an impressive record for predicting sociocultural adaptation. Individuals who perceive more dissimilarity between original and host cultures experience more social difficulty during cross-cultural transitions (Ward and Searle 1991). In addition, literature implicitly assumes that frequent interaction with hosts facilitates cross-cultural adjustment. Also, making local friends is an important indicator for bridging the gap of culture shock for international students (Lee 1981; Church 1982; Searle and Ward 1990; Henderson et al. 1993). Searle and Ward find that satisfaction with host national relations predicates psychological adjustment in Malaysian and Singapore students in New Zealand. Research in international counseling suggests that friends are the most favored helper in the personal and social problem areas for Asian students as well as for American students (Mau and Jepsen 1990).

Researchers have developed scales or indices of acculturation. The Contact Index by de Lacey (1970) contains two sections: exposure variables and adaptation variables. The Ownership Index by Berry and Annis (1974) consists of eight variables which include language, knowledge, ownership, employment, and religion. The Change Index by Olmedo et al. (1978) focuses on sociocultural

characteristics of language, nationality and occupational status. Among all the indices, contact and participation are common concepts.

Reference Group Shift

Attitude changes are also considered as the result of college experience (Newcomb 1943; Freeman 1967), changing in reference group (Siegel and Siegel 1957), and increasing tolerance (Ogle and Dodder 1978). This research suggests that the college experience has a significant and profound effect upon student behavior and attitude. Those students who shift their reference groups to the college environment are viewed as experiencing conflicting definitions of new experiences received at college. The college environment is assumed to play a role in the transmission of values associated with tolerance.

International students maintaining or changing their attitudes, values, and beliefs, to a large degree may depend on their selection of a reference group. A reference group is a social group whose opinions are valued. A person often seeks guidance from others. Sarbin and Allen (1968) defines the reference group:

This term designated as the group which a person values. It is often used to explain behavior oriented toward audiences not physically presented. A reference group may be a membership or nonmembership group, a

single other person, a category of people (p. 532-33).

Brislin points out the confrontation between old and new reference group (1982). He believes that people maintain many of their attitudes, values, and beliefs because of ingroup support. However, when people start to develop new relationships and receive host nationals' support, they begin to modify existing attitudes, values, and beliefs.

Cross-Cultural Adjustment

As a result of intercultural interaction, a person's attitudes and values are continuously transforming. What are the effects of this transformation? Literature on cultural transition and adjustment among immigrants and international students is prodigious, but yet remained largely unsynthesized. The research has presented different theoretical and empirical patterns which are so distinguishable that sometimes they are contradictory to each other.

Ward and Kennedy (1993) distinguish two fundamental types of cross-cultural adjustment--psychological and sociocultural. The psychological adjustment refers to psychological well-being or satisfaction. The sociocultural adjustment is related to social skills, the ability to "fit

in" or negotiated aspects of the host cultures.

Psychological adjustment is interwoven with stress and coping processes, whereas sociocultural adaptation is predicted from cultural learning.

The theoretical diversity on cross-cultural adjustment has been presented by research in the last ten years. According to Ward and Searle (1991), there are three theoretical positions emerged as prominent in the area of sojourner adjustment: (1) clinical perspectives, (2) social learning models, and (3) social cognition approaches. Clinical models have conventionally drawn on the role of personality, life events or changes, losses, and social supports which facilitate or impede the adjustment process (Adelman 1988). Social learning models have emphasized the acquisition of culturally appropriate skills and behaviors through contact with host nationals, cross-cultural experience, and training (Furnham and Bochner 1982; Befus 1988). Social cognition approaches have concentrated on the importance of variables such as attitudes, values, self-concept, expectations, and perceptions in the cross-cultural adjustment process (Wong-Reiger 1984; Weissman and Furnham 1987).

Empirical studies on cultural transition and adjustment suggest that the different results of cross-cultural

interaction are arranged from more stressful to less stressful and from complete to no correlation between behavior and values. These phenomena themselves are interesting in seeking an understanding of the results of value change. For instance, research among Japanese-Americans shows that the most acculturated group has a coronary heart disease prevalence three to five times that of the least acculturated (Marmot and Syme 1976). Other studies among Chicanos suggest that individuals who either retain their cultural values or wholly ascribe to the value system of the majority culture manifest less psychopathology than those in the midst of assimilation (Fabrega, Swartz and Wallace 1968; Senour 1977). Research on cultural adjustment of India students and Indochinese refugees in the United States demonstrate that once the initial phase has been successfully managed, both individuals' positive orientation toward host environment and their behavioral capacities to communicate with the natives increase (Coelho 1958; Kim 1980). Besides, some researchers suggest that cultural differences in value orientations represent the more abstract of the variables.

Considerable previous literature on sojourners, however, has identified relationships between value systems and socio-cultural adaptation. The individuals who perceive

more dissimilarity between original and host cultures experience more social difficulty during cross-cultural transitions (Furnham 1988; Ward and Searle 1991). Frequent interaction with hosts facilitates cross-cultural adjustments, and making local friends are the important indicators for bridging the gap of culture shock for international students (Lee 1981; Church 1982; Adelman 1988; Searle and Ward 1990; Henderson et al. 1993). Searle and Ward (1990), for example, find that satisfaction with host national relations predicates psychological adjustment in Malaysian and Singapore students in New Zealand. International consulting findings demonstrate that for Asian students, as well as for American students, friends are the most favored helper in the personal and social problem areas (Mau and Jepsen 1990).

Some efforts have been made to synthesize different theoretical perspectives through empirical studies. In their study on Malaysian and Singapore students in New Zealand, Searle and Ward (1990) have conducted investigations of clinical, cognitive, and behavioral variables and their impact on psychological and socio-cultural adjustment. Their study was designed to construct predictive models of psychological and socio-cultural adjustment and included measurements of quality and quantity

of interpersonal relations with host and co-nationals, attitudes toward hosts, cultural distance, expectations about the new culture, personality, and life events. They suggest that psychological adjustment is better understood within a stress and coping framework (cross-cultural transition), while socio-cultural adaptation is more appropriately examined in conjunction with social learning and cognitive perspectives. Kim and Ruben (1988) provide a dynamic and positive proposition of sojourners' stress-adaptation-growth process. As introduced in previous sections, by adapting new cultural values, intercultural persons are likely to become increasingly open to the dynamics of intercultural encounters and to attitudes that are less ethnocentric, less prejudging, less rejecting of other cultures and peoples, and more embracing of their differences with a clearer, more acute, and more tolerant mind, a heightened emotional sensibility and a more flexible behavioral repertoire (p. 317). The possibility of this intercultural personality is the development of cognitive capacity. With this capacity, a person is able to experience the dialogical interaction between the original culture and the new culture. The increased cognitive depth and breadth is likely to further facilitate corresponding emotional and behavioral flexibility. Based on these

reasons, intercultural persons can function better in new cultural environments.

Adjustment to another culture, according to Brislin (1982) includes the core elements of people's satisfaction, perceived acceptance by hosts, and ability to function during everyday activities without severe stress. Most international students spend three to five years working for a college degree. Given that amount of time, they must cope with everyday problems enough to force some kind of significant adjustment in a new culture. If correlates of adjustment can be found, there should be principles which enhance this process for international students. Since cross-cultural adjustment is based not only upon people's traits, skills, and knowledge but also upon the groups they join and the organizations in which they work, interpretations of correlates could help institutions who receive international students and are interested in increasing the students' satisfaction during the time they stay.

Cultural adjustment has received much attention among scholars of cross-cultural research. It is viewed as the most important step of a complete adjustment which is marked by four developments involving peoples' beliefs, attitudes, values, and behaviors (Taft 1977). Cultural adjustment has

both subjective and objective components (Brislin 1982). The subjective component of cultural adjustment refers to people's self-perception about their lives, whereas the objective component refers to observable behaviors and to hosts' perceptions. In the international students' case, the subjective component of cultural adjustment involves the students' feelings of comfort in the host society. Further, it includes a feeling that one is "at home" in the society. Cultural adjustment also refers to smooth integration of personality with culture. The objective component refers to judgments by hosts that the individual is aware of appropriate behaviors and is able to maintain cordial relations with people. Other indications are that the individual has acquired a means of livelihood in the host culture and is a member of groups which can assist in times of need.

Learning social and cultural skills is required in a new cultural context. Research has demonstrated that social difficulty is predicted by cultural knowledge, language ability, and quality of interaction with host nationals (Klineberg and Hull 1978, 1979; Kealey 1989; Westwood and Barker 1990; Ward and Kennedy 1993). Research also find it is related to length of residence in host culture (Ward and Kennedy 1993).

Cultural adjustment is essential for achieving goals for international students who encounter a new culture. As Brislin (1982) states:

cultural adjustment is dependent upon establishing group ties and successfully completing one's task-related goals" (p. 283).

He believes that international graduate students "must adopt roles which increase the chances of success within their academic discipline" (p. 267).

Davis, Lofquist and Weise (1968) consider cross-cultural adjustment as a special case of adjustment in which cultural differences are essential in the person-environment interaction in their theory of work adjustment. Stemming from this theory, Cheung and Culha (1975) present a Correspondence Model of Cross-Cultural Adjustment. This model defines cultural adjustment as the continuous and dynamic process by which the individual seeks to achieve and maintain correspondence with his/her cross-cultural environment. According to this model, cross-cultural adjustment at the individual level can be characterized as either active or reactive modes. With the active mode, the individual acts on the environment to change it to accommodate to his/her needs. The object of change is outer-directed and task-oriented. On the other side, with the reactive mode, the individual responds to the

environment by modifying his/her own personality structure or behavioral expressions. The object of this change is inner-directed (p. 100). Value change is inner directed reaction to the environment for the students.

Despite all the efforts of research on the adjustment process during cross-cultural transition, precisely what constitutes adjustment has remained ambiguous. In addition to cross-cultural adjustment, the relationship between value discrepancies and cultural adjustment requires further investigation and exploration.

Limitations of Previous Research

While many scholars in multiple disciplines have devoted themselves to the study of international students in U.S. universities, previous research in the area suffers from theoretical and methodological shortcomings. For example, while culture shock has been identified as a common phenomenon in international students' initial experience outside their homeland, little effort has been made to explore the causes behind this phenomenon. Previous research has noticed value difficulties among international students. However, little research has considered sojourner mobilization as an interrelated process. Studying only sojourner's experiences without relating them to their value

backgrounds and their expectation before departure can hardly gain a rich picture of this experience. The present study examines Chinese students' value systems between those who plan to come to the U.S. and those who have experienced American culture and asks the questions such as: how does value change happen when students are relocated into a new culture? What are the factors effect their change on cultural values.

Additionally, while there are many studies on Eastern values, most of them are mainly concerned with economic development within nations or regions. Little attention is paid to the relationship between external environmental change and interpersonal contact. Because Eastern core values is considered to be relation-oriented, research on the changes in human relationship may bring insights on value studies. At the same time, it may help us understand impacts of social contact and social interaction.

Lastly, very few researchers on social contact and cultural values have combined quantitative and qualitative research methods. For instance, earlier value configurations established according to anthropological tradition are based on field work--observing natural behavior, and questioning informants. Single research methodology in cross-cultural studies make it difficult to

assign validity to the studies. In this tradition, a individual is perceived as a cultural carrier so that an informant can provide information about a group's value when speaking about his/her own, assuming that there is no within-culture variance. As Mead (1953) says: "any member of a group, provided that his position with that group is specified, is a perfect sample of the group-wide pattern on which he is acting as an informant" (p. 6). This alleged isomorphism between an informant and the group appears today as an oversimplification.

Similarly, earlier sociologists, both as members and observers of their society, often provide descriptions of the values of society by relying essentially on their own analytical powers.

In a different research tradition, as in the use of the survey approach for the study of values, the communality between the individual and the group is determined by the use of aggregate responses obtained from a sample of individuals and expressed through average frequencies. Most psychologists apply this method, including complex statistical procedures, to the cross-cultural studies.

In contrast, the Symbolic Interactionist school is more likely to conceptualize the relationship between the individual and the group values by hinting at still poorly

known processes through which individual values emerge and eventually modify the sociocultural environment. This approach views personal values as the result of complex transactions between the individual and the environment; thus it may mislead by assuming that general cultural values are also the personal values. Triangulation methodology provide a "paradigmatic shift" (Kuhn 1962). Taking one step to overcome previous limitations in literature, the current study combines both quantitative and qualitative approaches.

CHAPTER III

THEORETICAL MODEL AND RESEARCH HYPOTHESES

This chapter integrates the extant literature on cross-cultural interaction and cultural value theories and proposes a theoretical model of cross-cultural interaction and cultural values. This model is based on the Cultural Contact Hypothesis (Hull 1978), Acculturation Theory (Berry 1980; Berry et al. 1986), Reference Group Location Scale (Ogle and Dodder 1978), the Chinese Value Survey (CCC 1987), and Value Change Frameworks (Church 1982; Martin 1984; Kim and Ruben 1988).

The model (see Figure 2) intends to conceptualize the relationships between cross-cultural interaction variables and cultural values. In this model, the independent variables are cultural contact, cultural attitudes, and reference group identification. Cultural values are treated as a dependent variable. In relation to this model a series of research hypotheses are proposed.

This study attempts to advance our knowledge about the linkage between cross-cultural interaction and cultural value using the case of Chinese students. The major sample

consists of Chinese students who reside in the United States. The control sample is a group of Chinese students who reside in China. Three specific questions are examined by the research: (1) To what degree does cultural contact affect cultural values among Chinese students? (2) To what degree does variation in cultural attitude influence cultural values among Chinese students? And (3) What happens when Chinese students take either Americans or Chinese as their reference group?

Theoretical Model

In order to answer the above questions, a model linking research variables is proposed. The independent variable, cross-cultural interaction, includes three dimensions: cultural contact, cultural attitudes, and reference group identification. Cultural contact refers to the contact the Chinese students have with Americans, members of the host society. Cultural contact includes information exposure and voluntary social interaction. Cultural attitudes denote the ways in which a member of one culture wishes to relate to another culture. Reference group identification indicates the group of people from whom an individual living in another cultural environment seeks opinions and support. The dependent variable, cultural values, is operationalized

through a set of Chinese core values.

The conceptualized relationships are developed as a result of theoretical triangulation. In this triangulation, a number of theories are integrated and combined in order to explain cultural values.

This section will explain the three theories used to build the conceptual model in the current study. These theories include: (1) Cultural Contact Hypothesis (Hull 1978; Klineberg and Hull 1979), (2) Cultural Attitude Studies (Berry 1980; Berry et al. 1986), (3) Reference Group Theory (Siegel and Siegel 1957). Then, dependent variable of cultural values will be introduced based on The Chinese Value Survey (CCC 1987).

Cultural Contact Hypothesis

Cultural contact focuses on Chinese students' interaction with Americans. In this study, the level of cultural contact will be measured using a modified Cultural Contact Scale (Klineberg and Hull 1979). This scale was developed to measure interaction between international students and local nationals and has been administrated in over eleven countries and regions in the world, including the United States and Hong Kong.

Cultural contact happens when individuals are removed

from their own culture and placed in a new cultural environment (Davis 1976; Church 1982). For the current study, intercultural contact consists of two dimensions: information exposure and social interaction. Information exposure refers to involuntary and task-oriented communication between American media and academic works and Chinese students. Included in this type of cultural contact are Chinese students' extent of reading newspapers and magazines, watching television programs and movies, listening to radios, participating in class discussion, and doing academic work with Americans.

Social interaction refers to personal, face-to-face intercultural communications between individuals from different cultures (Adler 1975; Kim and Ruben 1988). Usually, this type of cultural contact is voluntary rather than out of task-oriented activities or survival necessities. Therefore, compared to information exposure, social interaction represents a higher level of cultural contact between members of two cultures. Items used in this dimension include types of voluntary contact, such as having meals with Americans, visiting American families, and discussing issues one concerns. It also contains the items of opportunities for interaction and frequency of interaction with Americans.

Items of cultural contact variable address the above issues of information exposure and social interaction. This scale utilizes standard seven-point Likert response continua.

Cultural Attitude Studies

Situations may be far more complicated than the linear direction from social contact to value change. Among many factors pointed out in the existing literature, cross-cultural attitudes are another important factor effecting the change in cultural values (Berry 1986).

For the purpose of the current study, the cultural attitude variable is distinguished into two dimensions. They are cultural maintenance and inter-group desirability. Cultural maintenance refers to the willingness to maintain cultural and ethnic identity. Intergroup desirability measures the extent to which host cultures will be accepted.

Cultural attitude is affected by modernity and intergroup relations. Modernity refers to the degree of which one wishes to remain culturally as one has been, as opposed to giving it all up to become part of a "modern" society. Intergroup relations refers to the extent one wishes to have day-to-day interaction with those of other groups, as opposed to turning away from other groups and

relating only to those of one's own group. Therefore, the varieties of cross-cultural attitudes are defined by position with respect to the two issues of modernity and intergroup relations. According to this theory, a modified typology of value maintenance and intergroup desirability is developed in figure 3.

FIGURE 3
 TYPOLOGY OF VALUE MAINTENANCE
 AND INTERGROUP DESIRABILITY

		Value Maintenance	
		Yes	No
Intergroup Desirability	Yes	Integration	Assimilation
	No	Separation	Marginalization

In this typology, the value maintenance dimension indicates the degree to which one wishes to maintain native cultural values. In this study, the items to identify value maintenance concern the importance of maintaining Chinese cultural values, maintaining relationship with Chinese, and maintaining ethnic identity. The intergroup desirability dimension describes the extent to which one wishes to interact with Americans. The questions related to intergroup desirability include trying to understand American cultural values, American ways of thinking, establishing friendship with Americans, learning to do things as Americans, learning to be happy in a different cultural environment, making adjustment, adapting to American culture, and behaving accordingly.

Items measuring cultural attitudes scale contains the above two dimensions of cultural maintenance and intergroup desirability. These items also have seven-point agree-disagree response continua.

Reference Group Identification

Reference group identification relates to group tendency, describing the category of persons opinions and supports are most concerned. The importance of reference group lies in its evaluation and support of a person (Ogle

and Dodder 1978). When a person moves into a bi-cultural environment, the group the person takes as reference group will affect his/her cultural values (Brislin 1982). In this study, reference group identification describes the choice of reference group by the Chinese students.

The questions related to this variable are the indication of the persons/group whose opinion the Chinese students concern the most, the identification of the persons/group who are the primary support to the Chinese students' values and goals. Response categories for these questions are Americans, Chinese, Americans and Chinese, and other internationals.

Cultural Value Studies

Cultural Values refers to relation-oriented values since they tend to remain unchanged within the domain of Chinese human relationships. Focusing on those values will be more meaningful for the purpose of the present research. As reviewed in the previous chapter, major efforts have been made to develop instruments for measuring values. For measurement tasks in cross-cultural research, Hofstede's (1980) four-dimension model has been most influential. This model of work-related values is built upon data collected in 40 countries. Through a factor analysis of culture

averages, four value dimensions were derived, including individualism, masculinity, power distance, and uncertainty avoidance. Together, these dimensions are richly suggestive of psychological processes with cross-cultural differences.

A more recent effort was made to identify some "culture-free" value dimensions by the Chinese Culture Connection, a group of scholars from 22 countries (CCC 1987). A Chinese Value Survey was constructed and administered to university students in 22 countries around the world. The original instrument included 40 items, which were considered core Chinese values. An ecological factor analysis revealed four dimensions: integration, Confucian work dynamism, human-heartedness, and moral discipline. Among these dimensions. The 40-item questionnaire is applied for measuring the importance of Chinese cultural values for the current study. This scale utilizes nine point Likert response continua.

Research Hypotheses

There are six hypotheses generated in relation to the research model between the two variables. These hypotheses intends to find associations between cultural contact and cultural values, cultural maintenance and cultural values,

intergroup desirability and cultural values, and reference group identification and cultural values.

Cultural Contact and Cultural Values

The conceptual evidence reviewed in the previous chapter suggests an overall relationship between levels of cultural contact and cultural values among the participants. In order to examine this relationship, three levels of analysis are needed. The first level analysis is a comparison between Contact Group (American Chinese Students) and Non-Contact Group (Chinese Chinese Students); the second level is a continuing observation among different degrees of contact with American among American Chinese students. The third level is a comparison between voluntary social interaction and information exposure. Three hypotheses are advanced in relation to these three level contact.

The first hypothesis is to compare Chinese Chinese students to American Chinese students and to examine their difference in cultural values. It states:

Hypothesis 1: American Chinese students have different scores on cultural values compared to Chinese Chinese students.

The second hypothesis focuses on only American Chinese students and examines the relationship between cultural contact level and cultural values in the group:

Hypothesis 2: The more cultural contact with Americans, the more changes on their value scores among American Chinese students.

According to prior cross-cultural studies, a meaningful approach in research of cultural values is to identify the underlying value dimensions that exist across different cultures. In this study, cultural values are examined through four value dimensions identified in the Chinese Value Survey (CCC 1987). These four dimensions include Integration, Confucian work dynamism, human-heartedness, and moral discipline. The following sub-hypotheses link each of these dimensions to the variable of cultural contact.

Dimension I. Integration refers to the desire for integrative, equal relationships. Items in this dimension include tolerance of others, harmony with others, solidarity with others, non-competitiveness, trustworthiness, contentedness with one's position in life, being conservative, having a close intimate friend, filial piety (obedience to, respect for and support of parents), and chastity in women.

In the former literature, western cultures have higher integration levels than does the Chinese culture. By interacting with Americans, the Chinese students should increase their levels of integration. Stated formally, I hypothesize that:

H-2a: The more cultural contact with Americans, the higher their scores on integration among American Chinese students.

Dimension II. Confucian work dynamism refers to awareness of social status and personal dignity. This dimension includes items of ordering relationships by status and observing this order, persistence, having a sense of shame, reciprocation, protecting your "face", respect for tradition, and observation of rites and social rituals.

Interestingly, this dimension is found to be correlated ($r=.70$) with economic growth in different countries from 1965 to 1984. The average correlation of Hong Kong and Taiwan was as high as 0.83, while the U.S. correlation was as low as $-.42$. While this dimension may have had a bearing on the known economic miracles in Asian countries, preservation of these values would be difficult when Chinese become engaged in interaction with Americans whose culture represents an antithesis to these Confucian work ethics. Accordingly, I hypothesize that:

H-2b: The more cultural contact with Americans, the lower their scores on Confucian work dynamism Among American Chinese students.

Dimension III. Human-heartedness refers to characteristics necessary for casual social relationships. Values in this dimension include kindness (forgiveness, compassion), patience, courtesy, and sense of righteousness.

In the CVS, this dimension was correlated to Hofstede's dimension of Masculinity. Along this dimension, Taiwan had a mean score of .58, while the U.S. mean score was 1.00. Assuming that the mainland China's position is similar to that of Taiwan over this dimension, I derive the following hypothesis:

H-2c: The more cultural contact with Americans, the higher their score on human-heartedness among American Chinese students.

Dimension IV. Moral discipline refers to the disciplines of self-control. This dimension consists of the items of keeping oneself disinterested and pure, having few desires, adaptability, prudence (carefulness), humbleness, moderation (following the middle way), and self-cultivation.

In CVS, the dimension of moral discipline was correlated negatively to Hofstede's dimension of Individualism. In this dimension, the average correlation of Hong Kong and Taiwan was $-.10$, while the U.S. correlation was $-.71$, revealing a great distance between the two groups over this dimension. Therefore, it is posited that:

H-2d: The more cultural contact with Americans, the lower their scores on moral discipline among American Chinese students.

As reviewed in the previous chapter, cultural contact may be observed in two different types of behaviors: (1) information exposure and (2) social interaction.

Information exposure is involuntary tasked-oriented communications with the host culture. In contrast, social interaction is voluntary and face-to-face communications. Theoretically and intuitively, social interaction should a better predictor for value change. Therefore, hypothesis three is stated:

Hypothesis 3: Voluntary social interaction with Americans has greater impact than information exposure on change in cultural values among American Chinese students.

Cultural Maintenance and Cultural Values

As an important aspect of cultural attitude, value maintenance may influence one's value orientations when s/he enters a foreign cultural environment. Particularly, the extent to which Chinese students modify their cultural values is posited to depend on their level of willingness to maintain these values. Therefore, the following hypotheses is suggested:

Hypothesis 4: The stronger the attitude toward cultural maintenance, the less likely the value change among American Chinese students.

Intergroup Desirability and Cultural Values

As shown in Figure 2, those students who fall into the category of Assimilation tend to have higher degrees of value change; those who fall into the categories of

Separation and Marginalization tend to have less change; and those who fall into the category of Integration may have contact with Americans and yet keep their value unchanged.

A hypothesis is advanced accordingly:

Hypothesis 5: The stronger the intergroup desirability, the more likely the value change among American Chinese students.

Reference Group Identification and Cultural Values

Based on the reference group shift framework, value changes are more likely among those Chinese students who identify Americans as their reference group than those who keep Chinese as their reference group. Therefore, the following hypothesis linking reference group identification and cultural values are proposed:

Hypothesis 6: American Chinese students who identify Americans as their reference group have different scores on cultural values compared to those who identify Chinese as their reference group.

Figure 4 is a summary of the six major hypotheses.

FIGURE 4

SUMMARY OF MAJOR HYPOTHESES

- 1) American Chinese students have different scores on cultural values compared to Chinese Chinese Students.
 - 2) The more cultural contact with Americans, the more change on their value scores among American Chinese students.
 - 3) Voluntary social interaction with American has greater impact than information exposure on change in cultural values among American Chinese students.
 - 4) The stronger the attitude toward cultural maintenance, the less likely the value change among American Chinese students.
 - 5) The stronger the intergroup desirability, the more likely the value change among American Chinese students.
 - 6) American Chinese students who identify Americans as their reference group have different scores on cultural values compared to those who identify Chinese as their reference group.
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CHAPTER IV
RESEARCH DESIGN AND METHODOLOGY

The present study collected data from Chinese students enrolled in two Chinese universities and one American university. It used a triangulation methodology which combined a quantitative approach (questionnaire surveys) and a qualitative approach (in-depth interviews). The surveys were conducted using a structured questionnaire. The included measures were largely adapted from existing instruments. In-depth interviews were guided by an interview brief containing open-ended questions. These questions were closely related to those in the questionnaire but aimed to provide thick description. Pretests and test-retests were conducted for examining measurement validity and reliability. Characteristics of survey and interview samples were provided at the end of the chapter.

Measures of Key Variables

Four existing instruments were modified and used selectively in this research. The instruments used to construct the survey questionnaire were (1) Chinese Value

Survey (CCC 1987), (2) Cultural Contact Scale (Klineberg and Hull 1979), (3) Cross-Cultural Attitudes Scale (Berry et al. 1986), and (4) Reference Group Location Scale (Ogle and Dodder 1978).

Chinese Value Survey (CVS)

The instrument of Chinese Value Survey (CCC 1987) contains 40 items. Respondents were asked to indicate on a 9-point scale how important each of the concepts is to them personally, where a score of 1 meant "no importance" and a score of 9 meant "supreme importance". The Chinese Value Survey identified four factors with 28 items loading above .55. The instrument was used in this study for measuring cultural values along the four dimensions.

Cultural Contact Scale

Cultural contact, an independent variable in this study, was measured with a modified version of Klineberg and Hull's Cultural Contact Scale (1979). Information exposure and social interaction were two dimensions that were selected from Klineberg and Hull's extensive scales. Information exposure and voluntary social interaction were distinguished as two types of cultural contact. The degree

of contact refers to summed scores of information exposure and voluntary social interaction.

Six questions were designed to measure information exposure. The questions on information exposure were focused on task-related activities. These questions include watching American movies, watching TV programs, reading American newspapers and magazines, listening to radio, doing academic work with Americans, and participating in class discussion. The Chinese students with purpose of receiving an American degree can not avoid these activities. Therefore, contact with Americans and American cultures in these activities were relatively involuntary contact.

On the other hand, voluntary social interaction with Americans were more personal and by choice. There were six items to measure social contact. These questions regarded involvement in social activities with Americans, visiting American families, having meals with Americans, opportunities for contact, discussing significant issues with Americans, and frequency of contact.

Respondents were asked to indicate on a 7-point Likert scale how satisfied each of the concepts was to them personally, where a score of 1 meant "no satisfaction" and a score of 7 meant "complete satisfaction".

Cross-Cultural Attitude Scale

This instrument was based on Berry's Cross-Cultural Attitude Theory (Berry et al. 1986). All the questions were rated on a 7-point Likert scale from 1 (strongly disagree), to 7 (strongly agree). Berry's theory assumed that cultural attitude was essential for a person's value change. The basic attitudes were the tendency toward value maintenance, intergroup desirability, and intergroup flexibility.

Three questions were designed as the independent variable of value maintenance. These questions were concerned with the importance of Chinese cultures, relationship with Chinese people, and Chinese ethnic identity.

Eight questions were designed to measure the variable of intergroup desirability. The questions were related to understanding American ways of thinking and ways of doing things, learning from Americans, learning to live happily in American society, making adjustment to American values and American ways of behaving, accepting Americans, and establishing friendships with Americans.

The other two questions were designed to measure the intergroup flexibility. One question was concerned with the possibility of adapting American norms without compromising

Chinese cultural norms; the other question was concerned with the importance of learning how to be happy living in a culture with a world view different from Chinese points of views.

Reference Group Location Scales

As one aspect of cross-cultural attitude, reference group identification was measured with three items adapted from the scale of Reference Group Location developed by Ogle and Dodder (1978).

The three questions were related to the following situations. The first question asked for the indication of the persons or group of people whose evaluation of you concern you the most. The second question sought the identification of the group or persons who were the primary support of your personal values or goals. Choices for these two questions were teachers or other adults at the university, close American friends at the university, close friends from home country at the university, parents or friends at home, and close friends from other countries at the university.

The four instruments used to construct the survey questionnaire are summarized in Figure 5.

FIGURE 5

SUMMARY OF INSTRUMENTATION

1. Cultural Contact Scale (Klineberg and Hull 1979)
 2. Chinese Value Survey (CCC 1987)
 3. Cross-Cultural Attitudes Scale (Berry et al. 1986)
 4. Reference Group Location Scale (Ogle and Dodder 1978)
-

Triangulation Methodology

A triangulation methodology of questionnaire surveys and in-depth interviews was applied in this study. Questionnaires were administered to two groups of Chinese students, one group in China and another in the United States. This research design allowed for comparison of the values of those Chinese students in China who basically had no opportunity of making contact with Americans to the values of those Chinese students whose U.S. residency

provided them with such an opportunity. Personal interviews served as a source of in-depth information relating to the research questions. Before the questionnaires were administered, in-depth interviews helped refine the questions included in the surveys. Upon completion of data analysis on the survey data, follow-up interviews were used to probe for a more comprehensive, clearer explanation and description.

Sampling Frame

A major purpose of the survey was to distinguish and compare the value differences among two Chinese student groups: No Contact Group and Contact Group. Therefore, two sub-sampling frames were designed for this study. One target population is Chinese students from China who came to study in the United States. Chinese students currently enrolled in a large mid-western state university were chosen to represent this group. The sample frame was all the Chinese students, who were currently enrolled at the Mid-Western state university. The frame listing is based on the Directory of the Chinese Student and Scholar Friendship Association at the university cross-checked with the list on the university's computer mainframe. A total of 200 students constituted the target sample.

To represent the No Contact Group, Chinese students from two Chinese universities were selected to participate in the survey. Specifically, students were solicited from the classes of Economics and Philosophy at the Beijing Foreign Language University and the classes of Chemistry and Computer Science at the Beijing Chemical Technology University. Altogether, 185 students enrolled in these classes. The basic reason for selecting these students was to seeking similar characteristics comparing to Chinese students in the U.S. Students from foreign language background assumed to have higher drives to study abroad than ordinary Chinese students. They occupied same language ability as those had already in the U. S. In addition to these two factor, most Chinese students in the U. S. majoring in hard sciences and engineering. Therefore, students in the technology university were also selected to match the major research sample for the current study.

Questionnaire Design

The questionnaire design for this research included a cover letter, an invitation for follow-up interview, and a demographic section. The cover letter was used in front of the questionnaire to state survey purpose and encouragement for response. At the end of the questionnaire, the

participant was invited for a follow-up interview. In designing the questionnaire, a translation process was carried out for different versions of the questionnaire.

Cover Letter. The cover letter was used to explain the purpose of the research and the importance of response. The participant was told that "my research may help Chinese students adjust to American life and help Americans have a better understanding of International students in general. Please help me by completing the enclosed questionnaire. Obtaining responses from you is very important" (see Appendix 1--Cover Letter for Survey Questionnaire). The research purpose was restated in the follow-up survey that "I am currently conducting a research regarding the cross-cultural interaction between Chinese students and American students for my dissertation. As a Chinese student, your opinion toward these questions is very important" (see Appendix 2--Cover Letter for Follow-Up Survey Questionnaire).

Previous research also points out the power of personal appeal. Accordingly, I explained in the cover letter who I was and why I was interested in this topic: "I am a student working on my Ph.D. degree in the Sociology Department at Oklahoma State University. As a Chinese student, I am very interested in the cross-cultural interaction between Chinese

students and American students" (see Appendix 1--cover Letter for Survey Questionnaire).

Since securing participants' right and confidentiality are essential for the response rate, I allowed the respondents the opportunity to refuse to participate in the survey. I wrote that "your answer to the questionnaire is voluntary. The information you provide will be held in strict confidence" (see Appendix 1--Cover Letter for Survey Questionnaire).

To encourage response, I informed the participant of the estimated time length required to complete the questions (about 20 minutes) and the deadline of returning the questionnaire. I also enclosed envelopes with return address and pre-paid marks for the first survey and envelopes with return address and expressive stamps for the follow-up surveys. In addition, I stated in different places in the cover letter that "I appreciate your willingness to participate in this important survey.... Thank you very much for your participation and assistance.... I look forward to your prompt response" (see Appendix 2--Cover Letter for Survey Questionnaire).

Demographic Information. In addition to measures of key variables discussed in the prior section, the questionnaire included questions pertaining to demographic

information. These questions regarded the subject's age, gender, marital status, places they are from, and major of study. The Chinese students in the U.S. were also asked about the degree they were working on and the length of time they had spent in the United States.

Questionnaire Language. While the 40-item Chinese Value Survey has both English and Chinese versions, it was subject to a double-check through back translation. All other measures were originally prepared in English. To administer the questionnaire to Chinese students in China, a translation process was carried out following the standard blind translation method (Brislin, Lonner, and Thorndike 1973). The questionnaire was first translated into Chinese. Then, it was translated back into English without reference to the original English version. Finally, modifications were made by comparing both English versions for congruency.

Survey Process

This research survey took seven stages for designing the questionnaire and conducting the survey. These stages included pilot study, questionnaire preparation, pre-test, test-retest, survey questionnaire distribution, and follow-up surveys.

A pilot study of in-depth interviews was conducted a year ago before the formal survey among twenty Chinese students. The purposes of this study were to find major differences between Chinese students and American students and to determine the major factors effecting cross-cultural contact between Chinese students and Americans. The interviews impressively demonstrated that cultural values were the major differences between Chinese students and Americans. And these difference was the major factor impacting on the cultural contact between the two groups. After the interviews, a research idea was very clear for me that was the study the relationship between cross-cultural contact and cultural values among Chinese students. With this research purpose, a survey questionnaire was designed with cross-cultural interaction as independent variable and cultural values as dependent.

After the pilot study and a draft questionnaire preparation, several experts, including graduate students who had experiences with international student studies, were invited for reviewing the questionnaire for validation. A pre-test was also conducted among six Chinese students, who had equivalent background as the later research subjects with the purpose of fitting the level of the target population. The questionnaire had been revised many times

based on each experts' suggestion and the problems appeared on the pretest among Chinese students. This test provided me knowledge of the unclear questions, format questionnaire, and times consumed for completing the questionnaire. Based on their questions and suggestions, the questionnaire was revised and a cover letter was added in front of the questionnaire.

The revised questionnaire was used for test-retest among two groups of students: American students and Asian students. Some of the questions rephrased or deleted after reviewing correlation coefficient. The finalized questionnaire was the one used for the current survey.

The survey questionnaire were distributed by mailing among Chinese students in the U.S. and administering by trained instructors in classes among students in Chinese universities.

The last stage was a follow-up survey. The follow-up survey included sending reminders to all subjects surveyed first time and making telephone calls to all Chinese students listed on the Directory of Chinese Student and Scholar Association. Then mailing or delivery questionnaires to those who had not received the first questionnaires.

The survey process is summarized in the Figure 6.

FIGURE 6
SURVEY PROCESS

1. Pilot interviews and Research Topic Generation
 2. Questionnaire Design and Translation
 3. Pretests for Measurement Validity
 4. Test-Retests for Instrument Reliability
 5. Mail Survey in the United States
 6. Questionnaire Administration in China
 7. Follow-Up Survey for Increasing Response Rate
-

Response Rate Analysis

Survey in the United States. A mail survey was used at the Mid-Western state university to distribute the self-administered questionnaires. A Chinese student population list was drawn from the university database, which included 102 Chinese students. Mailing questionnaires were sent to these 102 students for the first-round survey and 26 questionnaires were return. The response rate for the first survey was 25.5%. A follow-up survey was conducted six weeks later by sending a remainder to each subject. The remainder was a 5" X 7" pink postcard with a hope for catching the subjects' attention.

At the same time, follow-up telephone calls were made to all Chinese students listed in the Directory of Chinese Student and Scholar Association. There were 142 students was listed on that directory. Telephone calls identified only 124 current enrolled full time student. Additional 31 questionnaires were mailed and 52 were delivered to those Chinese students who claimed not receiving the questionnaires. The reasons for overlapping questionnaires were included changing address, losing in the mails, and losing questionnaires from the first survey. Additional 81 questionnaires were returned and used for the secondary

survey. As a result, out of the total Chinese student population (N=124), 107 students responded. A response rate of 86.3% was achieved.

Survey in China. The survey conducted in Chinese universities was administrated by instructors in their classes. In order to match the factors affecting cultural values among American Chinese students, the selection of universities were based on the following considerations. First, I assumed that there was an association between learning English and learned western culture. Before the Chinese students come to the U.S., they usually spend much time in learning English for passing English examines. Therefore, one university selected was specialized in foreign language studies. Second, the majority Chinese students in the U.S. majored in hard sciences such as engineering, computer science, chemistry, and physics. Therefore, the second university selected was a hard sciences based university.

The students were informed by their instructors about confidentiality and asked to respond voluntarily. Chinese version questionnaires were distributed among 198 students and 192 were returned. Of 192 questionnaires, seven of them were unusable due to incompleteness or inappropriate answers

such as circled all 9s on 9-point Likert scales. Thus, 185 questionnaires were used for this study. The response rate was 93.4%.

Interview Design

In-depth interviews was the second method for collecting data in this research. Pilot interviews were conducted to define research problems and to refine the research questions for survey questionnaire and interview brief. The formal interviews play an important role of providing ethnographic description and explanation for the survey information.

Interview Procedure. A pilot study of interviews among 20 Chinese students was conducted two years ago. The pilot study identified the basic research problems and provided familiarity of the study population.

In the current study, an invitation for voluntary follow-up interviews was given at the end of the survey questionnaire. The Chinese students interested in further contact had choices stated as the followings (see Appendix 3--Survey Questionnaire):

If you are interested in a follow-up interview and/or receiving a copy of this research result, please check the following number:

1 = I am interested in a follow-up interview and receiving a copy of the research result.

Name _____ Phone _____

2 = I am interested in receiving a copy of research result.

Name _____ Address _____

Interview Sample. A total number of 25 interviews were conducted. Among them, 12 interviewees were the students checked the first choice in their questionnaires for follow-up interviews. Since only 12 students were willing to participate in interviews and majority of them were relatively new students, additional 13 students were identified according the Directory of Chinese Student and Scholar Friendship Association.

The interview sample selection was based on the principle of representative samples of different demographic factors which might effect cultural values. The major considerations for demographic factors were sex, marital status, major, age, major of study, degree being working on, and years in the United Stated. These students were contacted and agreed to be interviewed. Each interview took approximately 60 minutes.

Interview Brief. Prior to the follow-up in-depth interviews, an interview brief was designed to gain a deeper understanding of the information gathered through survey questionnaires. A statement was presented before each interview. The points in the statement stated that "this interview brief is designed to understand the phenomenon of cross-cultural contact and provide a detailed description and explanation of the impact of intercultural relationship on value change. It is voluntary. There is no right or wrong answers. The information you provide will be kept confidential. Thank you for your participation" (see Appendix 5--Interview Brief).

The major interview questions included the followings:
What are the major differences between American students and Chinese students? How do you view the relationship between Americans and Chinese students? Has your time in the United States effected your view of Chinese cultural values? Do you think it is important to maintain a relationship with other Chinese in the United States? Do you think it is necessary to maintain Chinese cultures while in the United States? Do you think it is possible to maintain Chinese values in the United States? Do you think it is important to develop relationships with Americans? Do you think it is

necessary to accept Americans despite cultural differences? Do you think it is possible to adopt American values without compromising your own cultural values? Could you live happily in a culture with a value system different from your own? The Interview Brief is attached as Appendix 5.

Validity and Reliability

In choosing existing instruments for use in this research, the literature was examined for validity and reliability of each selected measure. Cronbach's Alpha was calculated for each instrument for scale reliability. Besides, in-depth interviews, pretests were conducted for measurement validity; test-retest was conducted for testing reliability.

Pretests

Personal interviews were first conducted with scholars who had experience in cross-cultural research and with both Chinese and American students. The interviews were used in clarifying research questions. The interviewees were also invited for reviewing the questionnaire.

Following the pilot interviews, pretests were conducted multiple times among Chinese students at the Mid-Western state university. Selected students were asked to fill out

the questionnaire and then to comment on its appropriateness. The preliminary instrument was also sent to a psychologist at the Chinese Academy of Science in Beijing for comments. Based on the expert opinions and the problems revealed in these pretests, moderate revisions were made.

Test-Retest

Measurement reliability is considered as essential to conducting a high quality research. The measures used in this study were examined for their test-retest reliability through administering the questionnaire twice to American students and Asian students. The test and retest were conducted two weeks apart. American students were from two Introductory Sociology classes consisting of 32 students each. Since there was a limited number of Chinese students on the campus, the current study reserved them for the final study. Therefore, students from other Asian countries were invited to participating in the reliability test. The Asian students were from two classes: One was an English Composition Class with 20 students, the other was an English class designed for the first year international graduate students with 29 students. The questionnaire was distributed before the classes were over. They were

instructed to take the questionnaires back home and return them in the next classes.

The test-retest found that different results among demographic questions and Likert scale questions. Demographic variables were highly correlated. With exceptions of years in school ($r=.85$) and ethnicity ($r=.91$), others were all correlated in 1.00. Items related to dependent variable which was 40 value items on 9-point Likert scale. The test-retest correction index was .80. Items for testing independent variable was 28 cultural interaction scales. The overall test-retest correlation for this variable was .76.

Generalizability

Although randomization is considered important, it is usually not possible and sometimes not desirable. The research sample of the Chinese students in the U.S. was drawn from a Mid-Western state university in the United States. The limitation of geographical location and type of schools effected Generalizability of the current study. However, a population of Chinese students in the university was participated in the current study, which covered all possible characteristics of this student body. Because this university was a large comprehensive university, it was

representative in terms of variety of demographic characteristics such as majors and degrees Chinese students working on. Because the university chosen for conducting the research was state university which was also representative of many U.S. university environment.

Characteristics of Research Subjects

The subjects in this research consisted of 292 Chinese University students. Among them, 185 Chinese Chinese students enrolled in two Chinese Universities in China and 107 American Chinese student were from a large Mid-Western university in the United States.

Characteristics of All Survey Subjects

The subjects could be divided into three age groups. Among the 292 Chinese students, 61.5% were under 25 years old, 30.2% were between 26 to 35 years old, and 8.3% belonged to the older than 35 group. Among Chinese Chinese, 91.4% were under 25 years old; only 8.6% were between 25 and 35 years old. American Chinese students were older compared with Chinese Chinese. A majority of them were between 25 and 35 (68.9%). Some of them were older than 35 years (23.3%). Only 7.8% of them were under 25 years. This situation reflects the Chinese students in both China and

the United States. Chinese students in the U.S. were usually five to six years older than those in China, because Chinese government had a very strict rule which required five years of services in China after graduation from university.

Age was a factor directly related to marital status. In terms of marital status 69.4% of the students are single, and 30.6% of them were married among all Chinese students. A majority of Chinese Chinese students were single (97.8%); and only a few students were married (2.2%). Marital status among American students demonstrated an opposite pattern. A majority of them were married (80.2%) and only 19.8% were single. On marital status the sample was disproportionally single for Chinese Chinese students and married for American Chinese. Yet the fact reflects the age situation of the college student populations both in China and in the United States. In addition, students were not allowed to get married in most universities in China.

With respect to gender, a balanced pattern was represented by the sample. Out of the total sample, male students consisted of 43.2%; and female students consisted of 56.8%. Among Chinese Chinese students, there were 33.0% male and 67.0% female. Among American Chinese, however, there were 60.7% male and 39% female. This gender ratio

difference was a reflection of the phenomenon that larger proportion of Chinese students in the U.S. were male. This pattern could be explained as a function of gender selection of majors. Male students tended to study hard sciences, while female students leaned to social sciences and humanity. Majority of Chinese students in the U.S. were majoring hard science. A part of the sample of Chinese students in China were from foreign language university.

Major of study was a relevant demographic variable included in the survey. In this sample, 41.4% of the subjects were from social sciences, humanity, and business, and 58.6% major in hard sciences, such as engineering, mathematics, chemistry, and computer science. Among Chinese Chinese students, 56.5% were majoring in social sciences and humanity, and 43.5% in hard sciences. Among American Chinese students, 15.1% were in social sciences and humanity, but 84.9% in hard sciences. This demographic information of all subjects is presented in Table 1.

TABLE 1

SAMPLE DESCRIPTION:
ALL SURVEY SUBJECTS
(N=292)

<u>Characteristic</u>	<u>All Subjects N=292 (%)</u>	<u>Chinese Chinese N=185 (%)</u>	<u>American Chinese N=107 (%)</u>
Age			
-20	177 (61.5)	169 (91.4)	8 (7.8)
21-30	87 (30.2)	16 (8.6)	71 (69.0)
30+	24 (8.3)		24 (8.3)
Gender			
Male	126 (43.2)	61 (33.0)	65 (60.7)
Female	166 (56.8)	124 (67.0)	42 (39.3)
Marital Status			
Single	202 (69.4)	181 (97.8)	21 (19.8)
Married	89 (30.6)	4 (2.2)	85 (80.2)
Major			
Social & Human	120 (41.4)	104 (56.5)	16 (15.1)
Hard Science	170 (58.6)	80 (43.5)	90 (84.9)

Characteristics of American Chinese Students in Survey

The American Chinese students are the major interest to the current study, while the Chinese Chinese students may be considered as a control group for comparison purpose. Therefore, characteristics of the American Chinese students deserve detailed description.

Particular attention was paid to two variables in the group: (1) the degree the subjects were working on and (2) the length of time subjects had spent in the United States. In this group, 2.8% were undergraduate students, 45.8% were students at the masters level, and 51.4% were Ph.D. students. These figures represented a pattern rather different from that of the Chinese Chinese group, in which all the students were enrolled in undergraduate classes.

Years of stay in the United States was another variable of interest. According to the former literature, length of time in a foreign country might have a bearing on one's subjective experience with the host culture. Among the American Chinese students, 44.3% had stayed in the United States for one to two years, 36.8% for three to four years, and 18.9% for more than five years.

This demographic information of the American Chinese students is presented in Table 2.

TABLE 2

SAMPLE DESCRIPTION:
 SURVEY AMONG AMERICAN CHINESE
 (N=107)

<u>Characteristic</u>	<u>Subjects</u>	<u>Percent</u>
Degree		
Undergraduate	3	(2.8)
Master	49	(45.8)
Ph.D.	55	(51.4)
Year in the U.S.		
1-2	47	(44.3)
3-4	39	(36.8)
5-7	20	(18.9)

Characteristics of Interviewees

The in-depth interviews contain 25 Chinese students (about 20% of the total research population in the Mid-Western university). The reason for using in-depth interviews in addition to surveys was that detailed information and value interpretation was essential for the current research topic. The interview questions were focused on cultural contact, voluntary social interaction, cross-cultural attitudes, reference group identification, and cultural values (see Appendix 5--Interview Brief).

The interviewees were selected in order to be representative. The sample was subdivided into proportions according to sex, marital status, majors, age, degrees being worked on, and years in the United States. Table 3 illustrates the characteristics of the interview sample.

TABLE 3

SAMPLE DESCRIPTION:
INTERVIEW AMONG AMERICAN CHINESE
(N=25)

<u>Characteristic</u>	<u>Subject and Percent</u>	
Gender	Male 14 (56.0)	Female 11 (44.0)
Age	Under 30 16 (64.0)	Over 30 9 (36.0)
Marital Status	Single 10 (40.0)	Married 15 (60.0)
Major	Social Science 8 (32.0)	Hard Science 17 (68.0)
Degree	Master 11 (44.0)	Ph.D. 14 (56.0)
Year in U.S.	Under 1 year 11 (44.0)	Over 1 year 14 (56.0)

CHAPTER V
RESEARCH FINDINGS

This chapter recounts the empirical findings from the study. The first part is an assessment of the measures of key constructs. The later part presents the tests of hypotheses.

Measurement of Key Constructs

This section presents an assessment of the measures used in the study. The dimensionality and reliability of the measures are examined through principle components factor analysis and Cronbach's alpha.

Variable of Cultural Values

The 40 items of Chinese Value Survey (referred to as CVS in Figures and Tables) were used to measure cultural values in this study. The instrument resulted from a study that involved 2,000 college students in 22 countries with at least 50 male and 50 female from each country (CCC 1987).

For each country the endorsement of the male respondents and of the female respondents on each value was averaged for each of the 40 items. The average of the male and female means for a given item then became their culture's score on that item. Then a principle axis factor analysis was run on the 40 standardized means from each culture, with factors rotated to orthogonal structure. Four factors were resulted from a scree test. These four factors were rotated to orthogonal structure using the varimax procedure. Items loading $>.55$ on any factors as defer that factor regardless of loading on other factors. As the result, only 28 of the original 40 items were remained.

Accordingly, the current study conducted first factor analysis with the 40 items. Twelve factors, rather than four, emerged from the analysis and items loaded very differently from the loadings of the Chinese Value Survey. Recall that the Chinese Value Survey kept only 28 out of 40 items. Thus, a second factor analysis was run with the 28 items. This time, eight factors resulted from the analysis, but item configurations were still loaded differently from Chinese Value Survey. Assuming the appropriateness of a four factor solution as postulated by the Chinese Value Survey, a third factor analysis was conducted to force the

28 items into four factors, with a hope that they might load similar as in The Chinese Value Survey. Again, the result was not similar. Different items were found cross factors comparing the current factor analysis to the Chinese Value Survey. Most items were not loaded same in the two studies with few exception of same. For examples, in Factor I of the current study, six items were found in the same factor of the Chinese Value Survey and the rest items were not even cluster together. The rest items in Factor I of the current study was found across different factors of the Chinese Value Survey: item 9, 15, and 32 were found in Factor II, item 8, 18, and 24 were found in Factor III, and item 28 and 29 were found in Factor IV. In factor II of the current study, three items were scatted cross Factor I, Factor III, and Factor IV of the Chinese Value Survey but none in factor II. Information presented in Figure 7 can be used to compare the four factor solutions and 28 item groupings between The Chinese Value Survey and the current study.

This comparison demonstrated that the factors were loaded very differently between the two studies. Obviously, The Chinese Value Survey's factor structure did not apply to this data set. I decided to identify the factor structure specific to the present data. In the fourth another factor

FIGURE 7

RESULTS OF FACTOR ANALYSIS OF 28-ITEM CULTURAL VALUES:
 COMPARISON BETWEEN CVS AND CURRENT STUDY
 (N=292, 28 items in current study)

The CVS RESULT	CURRENT RESULT
<p>Factor I</p> <p>3. Tolerance of others</p> <p>4. Harmony with others</p> <p>11. Solidarity with others</p> <p>20. Patriotism</p> <p>30. Trustworthiness</p> <p>36. A close, intimate friend</p> <p>1. Filial piety</p> <p>17. Non-competitiveness</p> <p>33. Contentedness</p> <p>34. Being Conservative</p> <p>37. Chastity in women</p>	<p>Factor I</p> <p>3. Tolerance of others</p> <p>4. Harmony with others</p> <p>11. Solidarity with others</p> <p>20. Patriotism</p> <p>30. Trustworthiness</p> <p>36. A close, intimate friend</p> <p>8. Reciprocation</p> <p>9. Kindness</p> <p>15. Sense of righteousness</p> <p>18. personal steadiness</p> <p>24. Persistence</p> <p>25. Patience</p> <p>28. Adaptability</p> <p>29. Prudence</p> <p>31. Sense of shame</p> <p>32. Courtesy</p>
<p>Factor II</p> <p>9. Kindness</p> <p>15. Sense of righteousness</p> <p>20. Patriotism</p> <p>25. Patience</p> <p>32. Courtesy</p>	<p>Factor II</p> <p>22. Keeping disinterested</p> <p>34. Being conservative</p> <p>35. Saving face</p>
<p>Factor III</p> <p>23. Thrift</p> <p>39. Respect for tradition</p> <p>35. Saving face</p> <p>8. Reciprocation</p> <p>14. Ordering relationships</p> <p>18. Personal steadiness</p> <p>24. Persistence</p> <p>31. sense of shame</p>	<p>Factor III</p> <p>23. Thrift</p> <p>39. Respect for tradition</p> <p>1. Filial piety</p> <p>37. Chastity in women</p> <p>38. Having few desires</p>
<p>Factor IV</p> <p>12. Moderation</p> <p>22. Disinterested and pure</p> <p>28. Adaptability</p> <p>29. Prudence</p> <p>38. Having few desires</p>	<p>Factor IV</p> <p>12. Moderation</p> <p>14. Ordering relationships</p> <p>17. Non-competitiveness</p> <p>33. Contentedness position</p>

Note: Bold face types mean that items are loading in the same factors for both studies; unbold face types mean that items are not loading on the same factors.

analysis, the 40 items were forced into four factors. The rationale for doing so is: (1) The Chinese Value Survey had four-factor structure which was widely accepted; and (2) based on the variance explained by each factor from the current factor analysis, four unweighted factors were suggested both by unweighted values (> 2.0) and scree plot.

By initial factor method, 18 items were selected based on the criteria of loading of .55 or higher on the first factor of total 40 items (consistent with The Chinese Value Survey) and loading of .55 or higher on each factor after orthogonal rotation.

For the purpose of comparison, the factor solutions and item groupings from both The Chinese Value Survey and the current study were presented in Figure 8. As Figure 8 demonstrated, the result of factor analysis from both studies were not similar. Again, different items were found cross factors comparing the current factor analysis to the Chinese Value Survey. With few exceptions, most items were not loaded same. For examples, in Factor I of the current study, two items were found in the same factor of the Chinese Value Survey and others were scatted across different factors of the Chinese Value Survey: one item was found in Factor II, one item was found in Factor III, and

FIGURE 8

RESULTS OF FACTOR ANALYSIS OF CULTURAL VALUES:
 COMPARISON BETWEEN CVS AND CURRENT FACTOR
 (N=292, 18 items in current study)

<u>CVS RESULT</u>	<u>CURRENT RESULT</u>
<u>F I: Integration</u>	<u>F I: Group Integration</u>
4. Harmony with others	4. Harmony with others
30. Trustworthiness	30. Trustworthiness
1. Filial piety	8. Reciprocation
3. Tolerance of others	19. Resistance to corruption
11. Solidarity with others	32. Courtesy
20. Patriotism	
36. A close, intimate friend	
37. Chastity in women	
17. Non-competitiveness	<u>F II: Social Order</u>
33. Contentedness	17. Non-competitiveness
34. Being Conservative	33. Contentedness
	34. Being Conservative
	6. Loyalty to superiors
	14. Ordering Relationships
<u>F II: Confucian Work Dynamism</u>	
9. Kindness	
15. Sense of righteousness	
20. Patriotism	
25. Patience	
32. Courtesy	
<u>F III: Human-heartedness</u>	<u>F III: Cultural Conservation</u>
39. Respect for tradition	39. Respect for tradition
8. Reciprocation	27. Cultural Superiority
14. Ordering relationships	37. Chastity in women
18. Personal steadiness	38. Having few desires
23. Thrift	
24. Persistence	
31. sense of shame	
35. Saving face	
<u>F IV: Moral Discipline</u>	<u>F IV: Self Protection</u>
22. Disinterested and pure	22. Disinterested and pure
12. Moderation	26. Repayment
28. Adaptability	35. Saving face
29. Prudence	40. Wealth
38. Having few desires	

Note: Bold face types mean that items are loading in the same factors for both studies; unbold face types mean that items are not loading on the same factors.

one item was not even included in the 28 items of the Chinese Value Survey. In Factor II of the current study, three items were found in Factor I, and one item was in the Factor III of the Chinese Value Survey.

Information presented in both Figure 7 and Figure 8 and earlier discussions provided strong evidence that the data used in the Chinese Value Survey and the current study were very distinguishable. Therefore, to further analyzes the data collected in this study, it is imperative to identify the unique factor structure underlying the present data. This task was completed in the fourth factor analysis. Table 4 provides a detailed presentation of the factor analysis results.

Next, two separated factor analyses were conducted for the two sub-samples: Chinese students in China and Chinese students in the United States. The results of the factor for the two sub-samples are reported in Table 5 and Table 6, respectively.

A careful comparison of Table 5 and Table 6 with Table 4 revealed a basically similar factor pattern. The difference were in the data of Chinese Chinese group, item 37 and 38 loaded on Factor II instead of on Factor III, and in the data of American Chinese, item 22 and 35 loaded on

TABLE 4

RESULTS OF PRINCIPAL COMPONENTS FACTOR ANALYSIS:
 MEASURES OF CULTURAL VALUES
 TOTAL CHINESE (N=292)

Item	Varimax Rotated Factor Loadings*			
	<u>Group</u> <u>Integration</u>	<u>Social</u> <u>Order</u>	<u>Cultural</u> <u>Conservation</u>	<u>Self</u> <u>Protection</u>
8. Reciprocation	.59	.12	.01	.23
30. Trustworthiness	.58	-.08	.02	.09
32. Courtesy	.57	.13	.20	.11
4. Harmony with others	.56	.25	-.20	.20
19. Resistant corruption	.55	.05	.15	.03
17. Non-competitiveness	-.21	.69	.08	.22
33. Contentedness	.05	.67	.08	.18
14. Ordering relations	.30	.62	.28	-.08
34. Being Conservative	-.07	.57	.23	.54
6. Loyalty to superiors	.28	.55	.15	-.04
38. Having few desires	.04	.48	.60	-.02
37. Chastity in women	.16	.27	.58	.25
27. Cultural superiority	.18	-.08	.68	.17
39. Respect for tradition	.14	.22	.67	.08
35. Saving face	.08	.28	.16	.74
40. Wealth	.07	-.06	-.20	.68
26. Repayment	.09	.01	.22	.63
22. Keeping disinterested	.05	.28	.32	.54

* Orthogonal Rotation.

TABLE 5

RESULTS OF PRINCIPAL COMPONENTS FACTOR ANALYSIS:
 MEASURES OF CULTURAL VALUES
 CHINESE CHINESE (N=185)

Item	Varimax Rotated Factor Loadings*			
	<u>Group Integration</u>	<u>Social Order</u>	<u>Cultural Conservation</u>	<u>Self Protection</u>
8. Reciprocation	.70	.06	-.09	.16
30. Trustworthiness	.48	-.06	.38	-.01
32. Courtesy	.44	.24	.42	.01
4. Harmony with others	.70	.06	-.09	.16
19. Resistant corruption	.58	.02	.19	.06
17. Non-competitiveness	.04	.64	-.30	.30
33. Contentedness	.17	.70	-.08	.14
14. Ordering relations	.43	.62	.15	-.01
34. Being Conservative	-.03	.65	.02	.52
6. Loyalty to superiors	.42	.53	.04	.07
38. Having few desires	.11	.65	.27	-.05
37. Chastity in women	.05	.63	.43	.12
27. Cultural superiority	.01	.16	.70	.23
39. Respect for tradition	.10	.48	.52	.03
35. Saving face	.07	.37	-.01	.70
40. Wealth	.11	-.14	-.03	.72
26. Repayment	-.02	.09	.27	.69
22. Keeping disinterested	.03	.33	.31	.63

* Orthogonal Rotation.

TABLE 6

RESULTS OF PRINCIPAL COMPONENTS FACTOR ANALYSIS:
 MEASURES OF CULTURAL VALUES
 AMERICAN CHINESE (N=107)

Item	Varimax Rotated Factor Loadings*			
	<u>Group</u> <u>Integration</u>	<u>Social</u> <u>Order</u>	<u>Cultural</u> <u>Conservation</u>	<u>Self</u> <u>Protection</u>
8. Reciprocation	.54	.08	.09	.30
30. Trustworthiness	.53	-.05	-.10	.03
32. Courtesy	.66	.15	.10	-.06
4. Harmony with others	.44	.28	.09	-.08
19. Resistant corruption	.50	.35	-.09	-.25
17. Non-competitiveness	-.34	.45	.38	-.19
33. Contentedness	.03	.52	.20	-.11
14. Ordering relations	.02	.59	.18	.10
34. Being Conservative	-.05	.58	.45	.09
6. Loyalty to superiors	.15	.67	-.16	.12
38. Having few desires	-.05	.35	.68	.06
37. Chastity in women	.27	-.07	.71	-.01
27. Cultural superiority	.02	.08	.50	.16
39. Respect for tradition	.06	.23	.62	-.09
35. Saving face	.22	.11	.65	.28
22. Keeping disinterested	.16	.21	.64	.18
40. Wealth	-.13	-.01	-.08	.61
26. Repayment	.03	.32	.07	.55

* Orthogonal Rotation.

Factor on Factor III instead of Factor IV. Overall, data both from the entire sample and from the two sub-samples supported a four-factor solution. In the following, each factor was discussed and tentatively labeled.

Factor I. This factor includes five items: (1) harmony with others, (2) trustworthiness, (3) reciprocation, (4) resistance to corruption, and (5) courtesy. The five values reflect a socially cohesive orientation. An integrative relationship not only resists rudeness and confrontation in interpersonal relations, but also and more importantly requires a trusting atmosphere whereby long-run balance of gratification is expected. This factor was labeled Social Integration.

Factor II. This factor includes five items: (1) non-competitiveness, (2) contentedness, (3) being conservative, (4) loyalty to superiors, and (5) ordering relationships. These values emphasize the importance of keeping oneself in proper social position for the sake of stability. The factor was labeled Social Order.

Factor III. Four items are included in this factor: (1) respect for tradition, (2) cultural superiority, (3) chastity in women, and (4) having few desires. These values endorse the reservation of tradition and self constrain.

The factor was labeled Cultural Conservation.

Factor IV. This factor contains four items: (1) keeping oneself disinterested and pure, (2) repayment, (3) saving face, and (4) wealth. What is appreciated include not only one's spirituality and public integrity, but also material wealth. Together, values in this factor reflect a tendency toward protecting oneself. I labeled this factor Self Protection.

Factor Analysis. As an indicator of reliability, Cronbach's alpha was calculated for each of the four factors. The Cronbach's alpha ranged from .66 to .73 on the data of total Chinese. The Cronbach's alpha ranged from .70 to .76 on the data of Chinese Chinese. The Cronbach's alpha ranged from .51 to .69 on the data of American Chinese. All of them were within the accepted levels for exploratory studies, which give me enough confidence to apply these measures in further analysis. The Cronbach's alpha for each factor is reported in Table 7.

Because the American Chinese group is of major interest to the current study, mean scores, factor loadings, and Cronbach's Alpha were then calculated for this group. Table 8 through 11 present these results, respectively.

TABLE 7
 CRONBACH'S ALPHA OF
 FOUR FACTORS OF CULTURAL VALUE

<u>Factor</u>	<u>Cronbach's Alpha</u>		
	<u>All Chinese (N=292)</u>	<u>Chinese Chinese (N=185)</u>	<u>American Chinese (N=107)</u>
GROUP INTEGRATION	.73	.72	.69
SOCIAL ORDER	.72	.76	.61
CULTURAL CONSERVATION	.69	.70	.67
SELF PROTECTION	.66	.70	.51

TABLE 8

MEANS AND FACTOR LOADINGS OF GROUP INTEGRATION
AMERICAN CHINESE (N=107)

Item	Mean*	Factor Loadings**
8. Reciprocation	7.45	.54
30. Trustworthiness	8.50	.53
32. Courtesy	7.92	.66
4. Harmony with others	7.46	.44
19. Resistance to corruption	7.65	.50

* Large values show importance; 1=no importance, 5=neutral, 9=supreme importance.

** Orthogonal Rotation.

TABLE 9

MEANS AND FACTOR LOADINGS OF SOCIAL ORDER
AMERICAN CHINESE (N=107)

Item	Mean*	Factor Loadings**
17. Non-competitiveness	3.70	.45
33. Contentedness	5.99	.52
14. Ordering relationships	5.32	.59
34. Being Conservative	4.29	.58
6. Loyalty to superiors	5.25	.67

* Large values show importance; 1=no importance, 5=neutral, 9=supreme importance.

** Orthogonal Rotation.

TABLE 10

MEANS AND FACTOR LOADINGS OF CULTURAL RESERVATION
AMERICAN CHINESE (N=107)

Item	Mean*	Factor Loadings**
38. Having few desires	4.18	.68
37. Chastity in women	6.49	.71
27. Cultural superiority	5.74	.50
39. Respect for tradition	5.77	.62

* Large values show importance; 1=no importance, 5=neutral, 9=supreme importance.

** Orthogonal Rotation.

TABLE 11

MEANS AND FACTOR LOADINGS OF SELF PROTECTION
AMERICAN CHINESE (N=107)

Item	Mean*	Factor Loadings**
35. Saving face	5.16	.65
22. Keeping disinterested	4.93	.64
40. Wealth	7.30	.61
26. Repayment	6.05	.55

* Large values show importance; 1=no importance, 5=neutral, 9=supreme importance.

** Orthogonal Rotation.

Variable of Cultural Contact

A factor analysis was conducted for the cultural contact variable. The criteria for item loading on a factor are .55 or higher on the first factor before rotation and .55 or higher on each factor after orthogonal rotation. The analysis produced two factors, which was consistent with my conceptualization of the cultural contact variable: (1) information exposure; and (2) voluntary social interaction. Each dimension contained six items. The results of principle components factor analysis for the measure of cultural contact are reported in Table 12. Table 12 also includes the results of the first factor of principle components before rotation, which indicates these two dimensions belong to one variable.

The mean scores, factor loadings, and Cronbach's alpha for each dimension of cultural contact were then calculated and reported in Table 13 and Table 14, respectively. The Cronbach's alpha for information exposure was .79 and for social interaction was .93. Both of them were reliable for further analysis.

TABLE 12

RESULTS OF PRINCIPAL COMPONENTS FACTOR ANALYSIS:
 MEASURES OF CULTURAL CONTACT
 AMERICAN CHINESE (N=107)

Item	<u>Original Factor</u> <u>Loadings*</u>	<u>Rotated Factor</u> <u>Loadings**</u>	
		<u>Information</u> <u>Exposure</u>	<u>Social</u> <u>Interaction</u>
13. Watching Movies	.61	.82	.21
12. Watching TV	.46	.78	.06
11. Reading News	.63	.59	.37
14. Listening Radio	.58	.59	.31
2. Doing academic works	.62	.58	.37
1. Participation in class	.57	.44	.39
8. Opportunities for contact	.88	.21	.91
5. Visiting families	.86	.21	.88
7. Involvement in activities	.83	.23	.83
9. Discussing issues	.86	.30	.83
6. Having meals	.83	.26	.82
10. Frequency of contact	.75	.38	.65

* First Factor of Principle Components before rotation.

** Orthogonal Rotation.

TABLE 13

MEANS AND FACTOR LOADINGS:
 MEASURES OF INFORMATION EXPOSURE
 AMERICAN CHINESE (N=107)

Item	Means*	Factor Loadings**
13. Watching Movies	4.93	.82
12. Watching TV	5.31	.78
11. Reading News	4.84	.59
14. Listening Radio	4.59	.59
2. Doing academic works	4.35	.58
1. Participation in class	4.23	.44

* Large values show level of agreement; 1=strongly disagree, 4=neutral, 7=strongly agree.

** Orthogonal Rotation.

Cronbach Alpha = .79.

TABLE 14

MEANS AND FACTOR LOADINGS:
 MEASURES OF VOLUNTARY SOCIAL INTERACTION
 AMERICAN CHINESE (N=107)

Item	Means*	Factor Loadings*
8. Opportunities for contact	3.67	.92
5. Visiting families	4.01	.88
7. Involvement in activities	3.75	.83
9. Discussing issues	3.75	.83
6. Having meals	4.12	.82
10. Frequency of contact	4.22	.65

* Large values show level of agreement; 1=strongly disagree, 4=neutral, 7=strongly agree.

** Orthogonal Rotation.

Cronbach Alpha = .93.

Perceived Cultural Difference

Before investigating each variable, three questions were asked to test the perceived cultural difference. Mean scores, factor loadings, and Cronbach's alpha for this measure were calculated and presented in Table 15. The Cronbach's alpha for this factor was .63.

Variables of Cultural Attitudes

Cultural attitudes are represented by three variables: (1) Chinese cultural maintenance; (2) intergroup desirability; and (3) reference group identification. The mean scores, factor loadings, and Cronbach's alpha for the measures of Chinese cultural maintenance and intergroup desirability were calculated and presented in Table 16 and Table 17, respectively. The Cronbach's alpha for cultural maintenance was .78 and for intergroup desirability was .85. Both of them were reliable for further analysis.

TABLE 15

MEANS AND FACTOR LOADINGS:
 MEASURES OF PERCEIVED CULTURAL DIFFERENCE
 AMERICAN CHINESE (N=107)

Item	Means*	Loadings**
63. Cultural values are different	5.85	.71
65. We behave differently	4.88	.69
64. We perceive things similarly	3.67 (4.31)#	-.82

* Large values show level of agreement; 1=strongly disagree, 4=neutral, 7=strongly agree.

Exception: in item 64, small values show level of agreement. So a reversed mean is provided.

** Orthogonal Rotation.

Cronbach Alpha = .63 (after reversing item 64).

TABLE 16

MEANS AND FACTOR LOADINGS:
 MEASURES OF CULTURAL MAINTENANCE
 AMERICAN CHINESE (N=107)

Item	Means*	Loadings**
68. Maintain ethnic identity	5.14	.90
67. Maintain relation with Chinese	5.45	.86
66. Maintain cultural values	5.48	.69

* Large values show level of agreement; 1=strongly disagree, 4=neutral, 7=strongly agree.

** Orthogonal Rotation.

Cronbach Alpha = .78.

TABLE 17

MEANS AND FACTOR LOADINGS:
 MEASURES OF INTERGROUP DESIRABILITY
 AMERICAN CHINESE (N=107)

Item	Means*	Loadings**
78. Try to understand	5.36	.85
80. Learn to do things	4.94	.79
79. Make adjustment	5.08	.76
75. Establish friendships	5.54	.71
71. Understand how to think	5.50	.67
76. Learn to be happy	5.90	.65
72. Adjust to the values	4.87	.63
77. Behave accordingly	4.22	.55

* Large values show level of agreement; 1=strongly disagree, 4=neutral, 7=strongly agree.

** Orthogonal Rotation.

Cronbach Alpha = .85.

Variable of Reference Group Identification

Two multiple-choice questions were included to collect information on reference group identification. Each of the questions had five choices, which were then categorized into three reference groups. The three groups were: (1) Americans; (2) Chinese; and (3) other internationals. The item frequencies of the reference group variable are reported in Table 18.

Four choices were further derived from the combination of the three group identifications when the two items were combined. The four choices were: (1) Americans; (2) Chinese; (3) mixed Chinese and Americans; and (4) other internationals. The combined frequencies of the reference group variable are reported in Table 19.

TABLE 18

FREQUENCY FOR EACH ITEM:
 MEASURES OF REFERENCE GROUP IDENTIFICATION
 AMERICAN CHINESE (n=103)

Item	Americans		Chinese		International	
	No.	(%)	No.	(%)	No.	(%)
7. Whose evaluation concern you most	31	(30.7)	67	(66.4)	3	(3.0)
8. Who is identified as Primary support	24	(23.3)	76	(73.8)	3	(3.0)

TABLE 19

FREQUENCY FOR COMBINED ITEMS
 MEASURES OF REFERENCE GROUP IDENTIFICATION
 AMERICAN CHINESE (N=97)

Item	Americans		Chinese		Mixed		International	
	No.	%	No.	%	No.	%	No.	%
Overall Evaluation & Support	11	(11.3)	53	(54.6)	30	(30.9)	3	(3.1)

Test of Hypotheses

As an initial assessment of the associations among the research constructions, t-tests and ANOVA were conducted with respect to several demographic variables and cultural values. Further tests of the research hypotheses involved regression analysis. One simple regression model and two multiple regression models were established for examining the linkages between cultural contact variables and cultural value factors and between cultural attitudes and cultural values. Then, ANOVA was used to examine the effect of reference group on cultural values.

Demographic Variables and Cultural Value Variable

Hypothesis 1: American Chinese students have different Scores on cultural values comparing to Chinese Chinese students.

This hypothesis was established based on the assumption that studying in the U.S. provides a group of Chinese students with the opportunity of cultural contact with Americans and this opportunity is not available to the Chinese students in China. If cultural contact leads to value change, crossing the national boundary should be a direct factor that relates to differences in cultural value

scores between the two groups of Chinese students. In order to test this hypothesis, a t-test on the association between country and cultural values was conducted. T-tests were also conducted with respect to gender and marital status. Finally, to look specifically at the Chinese students in the United States, more t-tests by gender, marital status, and years staying in the U.S. were run for this group.

In light of the different factor solutions noted earlier, I decided to conduct statistic analysis based on the two factor solutions, separately. Results of t-tests based on The Chinese Value Survey factors are reported first. I then present t-test results based on the factor solution identified in the present data.

T-tests Based on The Chinese Value Survey Factors. The t-test method was used to investigate possible difference in cultural values between the two sub-samples based on The Chinese Value Survey four-factor solution. The results demonstrated no significant difference over any of the four value dimensions. The t-test results are presented in Table 20.

TABLE 20

RESULTS OF T-TEST BY COUNTRY OF RESIDENCE:
 FOUR VALUE DIMENSIONS FROM CVS
 TOTAL CHINESE (N=292)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	6.73	-.86	.39
SOCIAL ORDER	7.74	-.14	.89
CULTURAL CONSERVATION	6.54	.27	.79
SELF PROTECTION	5.89	1.26	.21

Next, two t-tests were conducted on gender and marital status with the four factors of 28-item The Chinese Value Survey. The results of the tests revealed no significant effect of these demographic factors on any of the four value dimensions. Table 21 and Table 22 report the results of t-test on gender and marital status, respectively.

TABLE 21

SIGNIFICANT LEVELS OF T-TEST BY GENDER:
 MEASURES OF 28-ITEM CULTURAL VALUES FROM CVS
 TOTAL CHINESE (n=292)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	6.73	-.86	.39
SOCIAL ORDER	7.74	.38	.70
CULTURAL CONSERVATION	6.54	.56	.58
SELF PROTECTION	5.89	-1.02	.30

TABLE 22

SIGNIFICANT LEVELS OF T-TEST BY MARITAL STATUS:
 MEASURES OF 28-ITEM CULTURAL VALUES FROM CVS
 TOTAL CHINESE (N=292)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	6.73	-.56	.58
SOCIAL ORDER	7.74	-.28	.78
CULTURAL CONSERVATION	6.54	-.43	.67
SELF PROTECTION	5.89	.89	.38

T-tests Based on Current Factor Solution. This section presents the results of t-tests based on the four-factor solution identified in the current research. The first t-test examined difference in cultural values by country of residence. The results demonstrated significant differences on two value dimensions: Group Integration and Self Protection. Moderate significant difference was also found on the dimensions of Cultural Conservation. However, no significant difference was revealed on the Social Order dimensions. The t-test results are presented in Table 23.

For purpose of comparison and subsequent analyses, the mean score on each factor was calculated for the total sample and for each of the two sub-samples. Comparing the means for the three significant value dimensions, all of their directions are as predicted. At Group Integration, the mean on Chinese Chinese (7.46) is lower than the mean on American Chinese (8.80), suggesting a more oriented to effect of staying in the U.S. on Group Integration. As for Cultural Conservation, Chinese Chinese score higher (5.88) than American Chinese (5.54), indicating a less oriented to effect of staying in the U.S. on Cultural Conservation.

TABLE 23

RESULTS OF T-TEST BY COUNTRY OF RESIDENCE:
 FOUR FACTORS OF CULTURAL VALUES FROM CURRENT STUDY
 TOTAL CHINESE (N=292)

<u>Measure</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	-3.07	0.0023***
SOCIAL ORDER	0.23	0.8201
CULTURAL CONSERVATION	1.78	0.0860-
SELF PROTECTION	-3.59	0.0004***

- p < .10.

*** p < .01.

Over the Self Protection dimension, the mean of Chinese (5.22) is lower than American Chinese (5.86), revealing a positive effect of staying in the U.S. on this cultural value. Table 24 reports the mean scores of the cultural value dimensions for the total sample and the two sub-samples.

The next t-test examined gender differences in cultural values. No significant difference was found on any of the four value dimensions. The t-test results are reported in Table 25.

A third t-test was conducted with respect to marital status. The results revealed no significant difference on the dimensions of Social Order and Cultural Conservation, but significant difference on the dimensions of Self Protection and Group Integration. Such that married American Chinese were more oriented self protection and group integration. The t-test results by marital status are presented in Table 26.

TABLE 24

MEAN SCORES FOR MEASURES OF CULTURAL VALUES
BY COUNTRY OF RESIDENCE

<u>Measure</u>	<u>Mean*</u>		
	All Subjects (N=292)	Chinese Chinese (N=185)	American Chinese (N=107)
GROUP INTEGRATION	7.58	7.46	7.80
SOCIAL ORDER	4.94	4.95	4.91
CULTURAL CONSERVATION	5.76	5.88	5.54
SELF PROTECTION	5.46	5.22	5.86

* Large values show importance; 1=no importance,
5=neutral, 9=supreme importance.

TABLE 25

RESULTS OF T-TEST BY GENDER:
FOUR CULTURAL VALUE DIMENSIONS
TOTAL CHINESE (N=292)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	7.58	-0.52	0.60
SOCIAL ORDER	4.94	-0.83	0.41
CULTURAL CONSERVATION	5.76	0.38	0.70
SELF PROTECTION	5.55	0.82	0.41

TABLE 26

SIGNIFICANT LEVELS OF T-TEST BY MARITAL STATUS:
MEASURES OF CULTURAL VALUES
TOTAL CHINESE (N=292)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	7.58	-2.06	0.0408**
SOCIAL ORDER	4.94	0.06	0.9540
CULTURAL CONSERVATION	5.76	1.09	0.2783
SELF PROTECTION	5.46	-3.43	0.0007***

** p < .05.

*** p < .01.

T-tests and ANOVA on Chinese Students in the U.S. The Chinese students in the United States was the major research interest to the current study. Therefore, more statistical analyses were conducted of this particular group.

As reported in Table 25, there was no significant difference on gender for the Chinese students as a whole. A further t-test was conducted among the American Chinese students. No gender related difference in cultural values was revealed in this particular group of Chinese Chinese students. The t-test results are reported in Table 27.

As described earlier, Chinese Chinese students were predominantly single, whereas American Chinese were relatively evenly divided between single and married groups. The significant differences between the single and married groups in the total Chinese sample (see Table 26) might well represent an actual difference between the two country groups. Based on this speculation, a t-test on marital status was conducted on marital status among American Chinese students. The results indicate no significant difference existing among marital status among American Chinese. The t-test results appear in Table 28.

TABLE 27

RESULTS OF T-TEST BY GENDER:
 MEASURES OF CULTURAL VALUES
 CHINESE AMERICAN (N=107)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	7.79	-.72	.47
SOCIAL ORDER	4.91	.77	.44
CULTURAL CONSERVATION	5.54	-.52	.61
SELF PROTECTION	5.86	.06	.96

TABLE 28

RESULTS OF T-TEST BY MARITAL STATUS:
 MEASURES OF CULTURAL VALUES
 AMERICAN CHINESE (N=107)

<u>Measure</u>	<u>mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	7.58	.78	.44
SOCIAL ORDER	4.94	-.73	.47
CULTURAL CONSERVATION	5.76	-1.38	.17
SELF PROTECTION	5.46	.18	.86

To examine possible difference in cultural values with respect to age, college major, degrees pursued by the students, and years staying in the United States, ANOVA was used. The results revealed no significant difference related to any of these demographic variables. However, when the students were divided into new comer group (one year or less in the U.S., n=31) and experienced group (more than one year in the U.S. n=75), a t-test revealed significant difference between the two groups on the value dimension of Cultural Conservation. Such that the American Chinese staying in the U.S. longer than one tended to have higher scores on cultural reservation than those staying in the U.S. less than one year. The t-test results are reported in Table 29.

Summary. Among all the demographic variables, the most significant effect was found to be related to where the Chinese students resided. Therefore, if cultural contact was the central concern to this research, country boundary appeared to be a major obstacle to cultural contact.

TABLE 29

RESULTS OF T-TEST BY YEARS IN U.S.:
 MEASURES OF CULTURAL VALUES
 AMERICAN CHINESE (N=107)

<u>Measure</u>	<u>Mean</u>	<u>t-value</u>	<u>p-value</u>
GROUP INTEGRATION	7.80	0.88	.36
SOCIAL ORDER	4.91	0.01	.99
CULTURAL CONSERVATION	5.54	2.07	.04**
SELF PROTECTION	5.86	0.33	.74

** p<.05.

In the context of this research, coming to the United States served as a foremost condition for value change among the Chinese students. To summarize, the findings of the analysis supported my first hypothesis that Chinese students in the United States experience a value change in comparison to those in China.

Bivariate Regression: Cultural Contact and Cultural Values

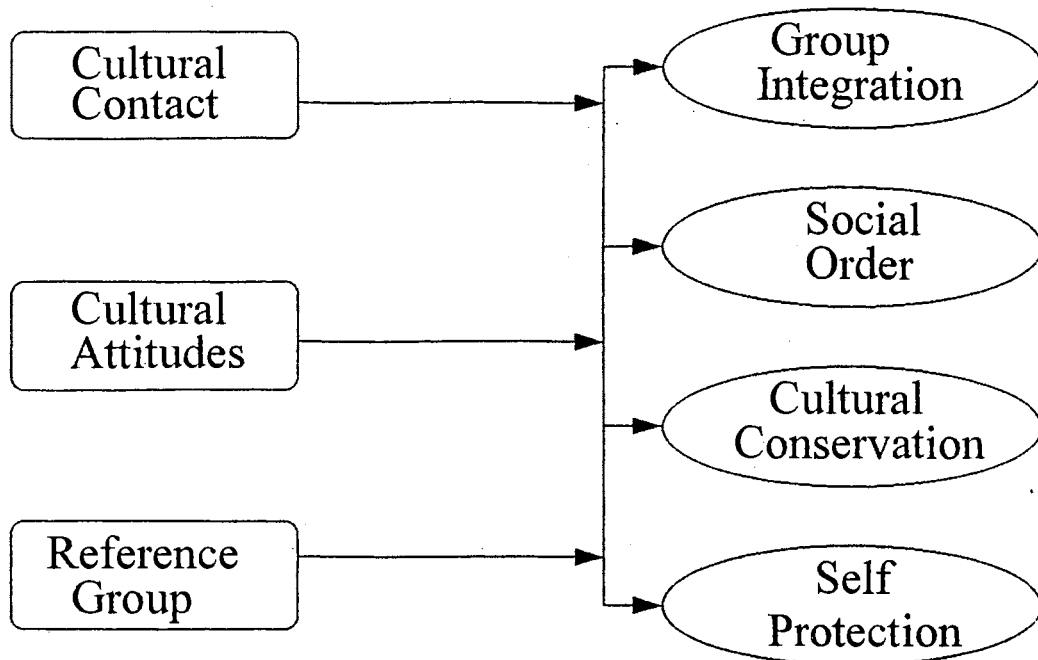
Recall that I decided to use the factor solution derived from the current data set in statistical analyses and the four factors were different from those of The Chinese Value Survey. Therefore, statistical tests required that the original hypotheses be modified to match the new factor solution. Figure 9 illustrates a model of cross-cultural interaction and cultural values with renewed hypotheses.

FIGURE 9

MODEL OF CROSS-CULTURAL INTERACTION AND
CULTURAL VALUES WITH RENEWED HYPOTHESES

Independent Variable

Dependent Variable



Hypothesis 2: the more cultural contact with Americans, the more change on their value scores among American Chinese students.

To examine the associations between cultural contact and cultural values, a regression model was applied. In this test, a summed score of cultural contact was used by totaling all the items in the measure. In reporting the results of hypothesis testing, the modified hypothesis is presented first and then provided the results of the tests.

H-2a: the more cultural contacts with Americans, the higher the scores on Group Integration among American Chinese Students.

The test of hypotheses that link cultural contact to each cultural values are summarized in Table 30. The general model is statistically significant at the .10 level, but only explains 1.89 percent of the variance in Group Integration. As hypothesized, Cultural Contact positively predicts Group Integration ($b=.11$, $p<.10$). Thus, H-2a is supported.

H-2b: the more cultural contacts with American, the lower the scores on Social Order among American Chinese students.

The general model was statistically insignificant ($p>.10$). Cultural Contact does not predict Social Order ($b=.18$, $p>.10$), rejecting H-2b.

TABLE 30

REGRESSION ANALYSIS OF CULTURAL CONTACT DIMENSION
WITH CULTURAL VALUE FACTOR
AMERICAN CHINESE (N=107)

<u>Variable</u>	<u>Cultural Contact Variable</u>				
	<u>Beta</u>	<u>t-value</u>	<u>P-value</u>	<u>Adj.R²</u>	<u>F</u>
Constant	7.30	23.82	.01	.02	2.81
Group Integration	.11	1.67	.09-		
Constant	4.09	8.01	.01	.02	2.53
Social Order	.18	1.59	.11		
Constant	5.11	8.29	.01	.01	.41
Cultural Conservation	.09	.64	.52		
Constant	5.77	11.15	.01	-.01	.08-
Cultural Contact	.03	.29	.77		

- P < .10.

H-2c: the more Cultural Contact with Americans, the lower the scores on Cultural Conservation among American Chinese students.

The overall model was statistically insignificant ($p > .10$). Since Cultural Contact does not predict Cultural Conservation ($b = .09$, $p > .10$), H-2c is not supported.

H-2d: the more Cultural Contact with Americans, the higher the scores on Self Protection among American Chinese students.

The regression model was statistically insignificant ($p > .10$). Cultural Contact does not predict Self Protection ($b = .3$, $p > .10$). The hypothesis was rejected.

Multiple Regression: Cultural Contact and Cultural Values

The multiple regression analysis linking cultural based on these findings, cultural contact to cultural values supported only one out of four hypotheses. Cultural contact appeared to have very limited impact on cultural values. While the results were unexpected, they are suggesting that more complicated mechanisms might underlie the two research constructs. As reviewed in Chapter II, there were two types of cultural contact (i.e., information exposure and voluntary social interaction) and their effects on cultural value change could be rather different. The next hypothesis intended to address this question.

Hypothesis 3: Voluntary Social Interaction with Americans has greater impact than Information Exposure on change in cultural values among American Chinese students.

To examine the association between the two dimensions of cultural contact -- Information Exposure and Social Interaction -- and cultural values, multiple regression was used. Hypothesis testing involved simultaneously regressing the two cultural contact dimensions on each of the four cultural value factors. The results of the subhypotheses analysis are summarized in Table 31.

H-3a: Voluntary Social Interaction with Americans has greater impact than Information Exposure on change in their scores on Group Integration among American Chinese Students.

The general regression model is statistically insignificant ($p > .10$) and only explains 1.49 percent of the variance in Group Integration. Neither Information Exposure nor Social Interaction predicts Group Integration ($b = .13$, $p > .10$; $b = .0085$, $p > .10$). Apparently, H-3a is not supported.

H-3b: Voluntary Social Interaction with Americans has greater impact than Information Exposure on change in their scores on Social Order among American Chinese students.

TABLE 31

REGRESSION ANALYSIS OF CULTURAL CONTACT DIMENSION
WITH CULTURAL VALUE FACTOR
AMERICAN CHINESE (N=107)

<u>Variable</u>	<u>Beta</u>	<u>t-value</u>	<u>p-value</u>	<u>Adj.R²</u>	<u>F</u>	<u>Prob.F</u>
I. GROUP INTEGRATION						
Constant	7.14	19.25	.01	.01	1.73	.19
Information Exposure	.13	1.32	.19			
Social Interaction	.01	0.12	.90			
II. SOCIAL ORDER						
Constant	4.55	7.42	.01	.02	2.17	.12
Information Exposure	-.12	-.72	.47			
Social Interaction	-.23	-1.95	.05-			
III. CULTURAL CONSERVATION						
Constant	5.45	7.31	.01	-.01	.55	.58
Information Exposure	-.11	-.57	.57			
Social Interaction	.15	1.04	.30			
IV. SELF PROTECTION						
Constant	6.43	10.46	.01	.02	1.93	.15
Information Exposure	-.29	-1.73	.09-			
Social Interaction	.21	1.84	.07-			

- P < .10.

The general model was statistically insignificant ($p > .10$) and explains only 2.44 percent of the variance in Social Order. Voluntary Social Interaction is not significantly predict cultural value changes.

H-3c: Voluntary Social Interaction with Americans has greater impact than Information Exposure on change in their scores on Cultural Conservation among American Chinese students.

The overall model was statistically insignificant ($p > .10$). Neither Information Exposure nor Social Interaction are predictors of Social Order ($b = -.11$, $p > .10$; $b = .15$, $p > .10$). The hypothesis is not supported.

H-3d: Voluntary Social Interaction with Americans has greater impact than Information Exposure on change in their scores on Self Protection among American Chinese students.

The overall model was statistically insignificant ($p > .10$) and explains only 1.93 percent of the variance in Self Protection. Neither Information Exposure nor Social Interaction predict of the value dimension of Self Protection. However, interestingly, the effect of Information Exposure is negative ($b = -.28$, $p < .10$), whereas the effect of Social Interaction is positive ($b = .21$, $p < .10$). While the inverse relationship between Information Exposure is surprising, Voluntary Social Interaction certainly would heighten the Chinese' value of Self Protection. But

overall, H-3d is not supported.

Multiple regression analysis does not support any sub-hypotheses linking two cultural contact dimensions to each of the four value dimensions. Thus, both tasked-oriented exposure to host culture and voluntary interaction in social activities have no significant influence on cultural values among Chinese students in the U.S.

Multiple Regression: Cultural Attitude and Cultural Values

Hypothesis 4: the stronger the attitude toward Cultural maintenance, the less likely the value change among American Chinese students.

Hypothesis 5: the stronger the Intergroup Desirability, the more likely the value change among American Chinese students.

To examine the associations between the two aspects of cultural attitudes--Cultural Maintenance and Intergroup Desirability--and cultural values, multiple regression was used. Hypothesis testing involved simultaneously regression the two cultural attitude dimensions on each of the four cultural value factors. The results of the subhypothesis analysis are provided in Table 32.

TABLE 32

REGRESSION ANALYSIS OF CULTURAL ATTITUDE
 VARIABLE WITH CULTURAL VALUE FACTOR
 AMERICAN CHINESE (N=107)

<u>Variable</u>	<u>Beta</u>	<u>t-value</u>	<u>p-value</u>	<u>Adj.R</u>	<u>F</u>	<u>Prob.F</u>
I. GROUP INTEGRATION						
Constant	5.91	10.52	.01	.09	6.10	.003***
Cultural maintenance	.19	2.57	.012**			
Intergroup desirability	.18	2.00	.048**			
II. SOCIAL ORDER						
Constant	4.85	4.92	.01	-.02	.19	.83
Cultural maintenance	.07	.54	.59			
Intergroup desirability	-.06	-.36	.72			
III. CULTURAL CONSERVATION						
Constant	5.32	4.75	.01	.38	2.94	.06-
Cultural Maintenance	.29	.14	.037**			
Intergroup Desirability	-.26	.19	.15			
IV. SELF PROTECTION						
Constant	6.19	6.27	.01	.01	1.09	.34
Cultural Maintenance	.13	1.04	.30			
Intergroup Desirability	-.19	-1.18	.24			

- p < .10.

** P < .05.

*** P < .01.

H-4a: the stronger the attitude toward Cultural Maintenance, the higher the scores of Group Integration among Chinese Chinese Students.

H-5a: the stronger the Intergroup Desirability, the higher the scores on Group Integration among American Chinese Students.

The general model of regression analysis was significant ($p < .01$). Both Cultural Maintenance and Intergroup Desirability positively predict Group Integration ($b = .18, p < .05; b = .18, p < .05$). Thus, the results of the analysis support H-4a and H-5a.

H-4b: the stronger the attitude toward Cultural Maintenance, the higher the scores of Social Order among American Chinese Students.

H-5b: the stronger the Intergroup Desirability, the less the lower scores of Social Order among American Chinese Students.

The regression model was insignificant at the .10 level. The beta coefficient for Cultural Maintenance and Intergroup Desirability were $-.06$ and $.07$, respectively, which were statistically insignificant at $p > .10$. Neither H-4b nor H-5b are supported, suggesting that the value dimension of Social Order is not influenced by cultural attitudes.

H-4c: the stronger the attitude toward Cultural Maintenance, the higher the scores of Cultural Conservation among American Chinese Students.

H-5c: the stronger the Intergroup Desirability, the lower the scores of Cultural Conservation among American Chinese Students.

The regression model is statistically insignificant ($p > .10$) and only explains 3.76 percent of the variance in Cultural Conservation. As expected, Cultural Maintenance positively predicts Cultural Conservation ($b = .29$, $p < .05$), supporting H-4c. Although the effect of Intergroup Desirability is not significant ($b = -.26$, $p > .10$), the negative sign of the beta coefficient points to the predicted direction, which is the stronger the attitude toward cultural maintenance, the higher the scores of cultural conservation among American Chinese students.

H-4d: the stronger the attitude toward Cultural Maintenance, the lower the scores of Self Protection among American Chinese Students.

H-5d: the stronger Intergroup Desirability, the higher the scores of Self Protection among American Chinese Students.

The general model is statistically insignificant ($p > .10$). Counter to my expectation, neither of the two cultural attitudes dimensions predicts Self Protection ($b = .13$, $p > .10$; $b = -.18$, $p > .10$). Therefore, H-4d and H-5d are both rejected.

ANOVA: Reference Group Identification and Cultural Values

Hypothesis 6: American Chinese students who identify identify Americans as their reference group have different scores on cultural values compared to those who identify Chinese as their reference group.

ANOVA was used to examine the effect of Reference Group Identification on each of the dimensions of cultural values. As demonstrated in Table 33, Reference Group Identification influences only one of the four cultural value dimensions-- Social Order ($F=3.89$, $p<.05$). The results indicate that those who consider Chinese as their primary reference group have more respect to social order than those whose primary reference group is Americans. Thus, Hypothesis 6 is partially supported.

Summary

To conclude the section of hypothesis testing, four major hypotheses for the current study were supported or partially supported. It appeared that cultural contact, as reflected in tasked-oriented information acquisition and voluntary social engagement, did not significantly influence the cultural values among American Chinese students. Cultural attitudes, expressed as varying degrees of willingness to maintain native culture or to get involved in

TABLE 33

SIGNIFICANT LEVELS OF ANOVA BY REFERENCE GROUP
 IDENTIFICATION: MEASURES OF CULTURAL VALUES
 AMERICAN CHINESE (N=107)

<u>Measure</u>	<u>mean</u>	F-value	p-value
GROUP INTEGRATION	7.79	1.09	.36
SOCIAL ORDER	4.83	3.89	.01**
CULTURAL CONSERVATION	5.55	1.59	.20
SELF PROTECTION	5.86	.59	.62

** p < .05

cross-cultural interaction, effect cultural values among American Chinese students. Reference group also impacted American Chinese students' cultural values.

The tests of twenty-four sub-hypotheses achieved differing degrees of success. Out of four sub-hypotheses relating country of residence and cultural values, three were supported through t-tests. For sub-hypotheses linking cultural contact with cultural values, bivariate regression analysis provided no support to any factor. Out of the eight sub-hypotheses on cultural value versus cultural maintenance and intergroup desirability, multiple regression analysis revealed three supported hypotheses and five rejected hypotheses. As for the associations between reference group identification and cultural values, one out of four sub-hypotheses was supported.

In terms of each of the four cultural value dimensions, group integration is conditioned by country of residence, cultural maintenance, and intergroup desirability. The dimension of social order is influenced by reference group identification. The cultural conservation dimension is affected by country of residence and cultural maintenance. Finally, self protection is conditioned by country of residence. The results are summarized in Figure 10.

FIGURE 10

SUMMARY OF THE TESTS OF HYPOTHESES

Hypothesis	Result
H1a. Country Residence & Group Integration	supported***
H1b. Country Residence & Social Order	no effect
H1c. Country Residence & Cultural Conservation	no effect-
H1d. Country Residence & Self Protection	supported***
H2a. Cultural Contact & Group Integration	No effect-
H2b. Cultural Contact & Social Order	no effect
H2c. Cultural contact & Cultural Conservation	no effect
H2d. Cultural Contact & Self Protection	no effect
H3a. Social Interaction & Group Integration	no effect
H3b. Social Interaction & Social Order	no effect-
H3c. Social Interaction & Cultural Conservation	no effect
H3d. Social Interaction & Self Protection	no effect-
H4a. Cultural Maintenance & Group Integration	supported**
H4b. Cultural Maintenance & Social Order	no effect
H4c. Cultural Maintenance & Cultural Conserv.	supported**
H4d. Cultural Maintenance & Self Protection	no effect
H5a. Intergroup Desirability & Group Integration	supported**
H5b. Intergroup Desirability & Social Order	no effect
H5c. Intergroup Desirability & Cultural Conserv.	no effect
H5d. Intergroup Desirability & Self Protection	no effect
H6a. Reference Group & Group Integration	no effect
H6b. Reference Group & Social Order	supported**
H6c. Reference Group & Cultural Conservation	no effect
H6d. Reference Group & Self Protection	no effect

Note: supported means the hypothesis is supported.
 no effect means the hypothesis is statistically insignificant at $p > .10$

- $p < .10$

** $p < .05$

*** $p < .01$

In-Depth Interview Findings

The in-depth interviews involved 25 Chinese students, about 20% of the total research population in the Mid-Western university. As noted earlier, in-depth interviews were used as one of the two methods in exploring the research questions in this study. Therefore, the interviews focused on the same concerns as those in the questionnaire. In this section, findings from the interviews are presented around the major research variables--cultural contact, cross-cultural attitudes, and reference group identification with respect to cultural values among the Chinese students.

Limited Cultural Contact

My pilot study demonstrated that while there was a strong motivation among Chinese students toward establishing friendship with Americans, their actual interaction with Americans was also very limited. This low level of cross-cultural contact was revealed in the questionnaire. The mean score on the 12-item cultural contact measure was 4.32 on a 7-point Likert scale. For the sub-scales of information exposure and social interaction, the mean scores

were 4.72 and 3.92, respectively. The findings from the in-depth interviews, which were presented in this section, portrayed a similar picture.

Three major factors emerged in the interviews that served as obstacles to cross-cultural interaction between Chinese students and Americans: (1) an active community existed among Chinese students which, while serving as a source of tangible and emotional support to the Chinese students, tended to limit their interactions with Americans; (2) a lack of interest in Chinese students by Americans contributed to Chinese students' retreating to their own community; and (3) financial constraints and practical considerations also restrained Chinese students from effectively interacting with Americans.

Chinese Community. When Chinese students first encountered a new, culturally different American society, they tended to rely on each other to make the transition. New students came and quickly made friends within the Chinese community. This community functioned through providing transportation, serving as credit unions, exchanging information, and assisting in health care and many other practical matters. The Chinese community also

provided emotional and psychological support to its members. That is, Chinese students seek and obtain, with relative ease, cultural identity, multi-dimensional friendships, long-term relationships, and emotional comfort from the Chinese community.

Most interviewees expressed the desire to establish relationships with Americans, for purposes of effective academic performance and of social support. In light of the possibility of permanently residing in the United States, this desire became stronger. However, the tangible and emotional support from within the Chinese community tended to be so strong and easy to obtain that the Chinese students simply did not reach out and interact with Americans very much.

Lack of Interests from Americans. "One cannot applaud with one hand". Many interviewees attributed the low degree of cross-cultural contact to the lack of interest from the American side. According to these Chinese students, they not only had the motivation but also were prepared, in terms of basic cultural knowledge and language skills, upon arrival in the United States. In most cases, the Chinese students had a strong motivation to interact with American

students when they first came to the United States. Such a motivation could be strengthened by rewarding interactions. Some student chose appropriate interaction partners and successfully managed these interactions. Consequently, they were convinced that making American friends was a beneficial activity and became even more eager to have frequent or intimate interactions with Americans.

However, other students experienced failures from interactions with Americans which decreased their motivation for interaction. One interviewee said "I don't feel I can really talk with those young students. They are not interested in us and I am not interested in them." Another related that "They generally don't care about our existence. They don't talk with us and I don't know what to talk with them either". Several students pointed out that professors and older students were more interested in interacting with them than younger students because they shared more common interests and comparable life experiences. But these people were busy with their own family or academic lives. As a result, Chinese students were discouraged and retreated to their own "countrymen circle".

Conditional Constraints. There were some conditional

constraints as well that limited Chinese students' interaction with Americans. These constraints were reflected in different interests in leisure time, academic priority, and personal financial situations.

Many interviewees said that they spent more time with Chinese friends rather than with Americans because they had different "funs". Several students said that they could hardly appreciate American students' fun. For example, they did not understand why people got so crazy over football; and they did not feel that getting drunk in bars could be fun at all.

Another factor which impeded the Chinese students' contact with Americans was their unique pattern of allocating time among academic success, social life, and leisure activities. Almost every interviewee mentioned that academic success was "the number one thing". "We just have no time for fun. We spend all possible time studying. Studying well and making good grades are very important for us". Some mentioned that since English was not their first language, they had to spend more time studying in order to digest what they learned in class. "We have to study very hard. We compete with American students in their language; we also compete with other international students who have

money sent from home while we have to spend twenty hours a week working". Most of the students felt that they had no choice but spent most of their time on study and work instead of seeking social activities. One student said, "Last semester, one of my American friends invited me to basketball games. I didn't go because I had a test next week. After that the friend never asked me to go to the ball game or anything, because -- he just told me -- he believe I care about my study but nothing else!"

According to many interviewees, personal financial conditions also constrained Chinese students's interaction with Americans. Frequently mentioned was the costs of social life. They believed "In this society, if you have no money, you have no friend". "Eating or drinking outside are very expensive, so are watching movies and sports. To make American friends, you can't just talk with them. They have no fun if only 'talking' with you. Although we want to make friends with Americans, we can't afford it". "To go out with Americans, you have to have money. No money, no 'face'. We don't like to be looked down upon". Since most of the students do not feel comfortable if they 'lose face' in front of their American friends, they prefer not to go out with them.

Task-Oriented Contact

In my conceptual model, cultural contact had two categories--task-oriented information exposure and voluntary social interaction. The interviews revealed that task-oriented contact (e.g., classroom interactions; group projects) had less effect on cultural values among the Chinese students. Occasionally, it might generate a negative effect on intergroup relationship. These findings were consistent with the survey results.

Classroom Interactions. Classrooms were the major place for Chinese and American students to interact. However, many Chinese students felt that interaction was often impeded even in the classroom. Interactions in classrooms often took the form of answering or raising questions to professors. Chinese students, in most situations, are quiet and try not to speak up in front of many others. But most graduate level classes required discussion, so remaining silent might affect students' final grades. This was very challenging for most Chinese students. One student said in her interview that "I don't want to be silent all the time, but it often takes me a

while to think what to say or how to response to professors' questions. Most of the time, when I decided to say something, the class already switches to another topic." Another student said, "I'm often prepared to participate in class discussions. But when discussion starts, students talk one by one. I don't know how to cut into discussions. Because I want to speak, I'm nervous all the time during the class. I'm often sweaty when the class is over."

However, Chinese students had different experiences in terms of formal interaction in classrooms. One student told me, "You should say something sometimes, but not too much. You've got to know when and where to stop. If you keep talking, you will soon find that American students frown and share the same facial expression among themselves". Even those students who were active in class found that class activity might not lead to positive relationships with Americans.

Many students recalled similar experiences of not being recognized by American classmates. A student majoring in electrical engineering told me her experience. "He (her American classmate) appeared from the other side of the hall and walked toward my direction. We got closer, then we were face to face. He walked with his head high and his eyes

looked straight forward. He passed me as if we had never known before. I left my mouth half open `Hah...'.`"

Another student told his story. "An American guy and myself walked down stairs together after the class. An American girl who took the same class last semester was going up stairs. She faced our direction and said `Hi'. I thought she was talking to both of us and quickly said `Hi'. She faced my friend, stopped, and talked with him. By that time I realized that she didn't recognize me and her `Hi' was only for my friend. "I felt it was too stupid to stand there and watch them talk. I said to my friend that "I will see you later and left. I did this as if I didn't notice her." This Chinese student took this experience as humiliating and felt he had lost face.

Doing Academic work. Interaction between Chinese students and Americans was more positive when they were involved in small group activities. Interactions in small groups become easier because the physical distance was getting closer and the situations seemed to be easier to control. However, when the frequency of interaction in small group increases, new complications can emerge. When the relationships become closer and more complex, the

students may take them more personal because of emotional involvement and group identification. One of the factors is so-called "face work" which is illustrated in the following account.

The following story was told by an interviewee, who had been in the United States for five years and now worked in the final stage of his Ph.D. "She [an American partner] was going to present a paper written by both of us. I approached her in the classroom before the seminar to make sure that we did not have anything unprepared. But she said 'I think I am ready', then turned her head and talked to others. I was shocked and stood there for a while and then I realized that she thought I was not really a necessity for the occasion. However, as the presentation proceeded, she was stuck by some professors' questions regarding statistical procedures. You know what? It was me who stood up and explained all the details. Now everybody knew who had done the job." With this face losing/regaining experience, the Chinese student decided not to work with Americans any more.

Interestingly, Chinese students found it easier for them to handle one-on-one interactions than more-than-two-person interactions. A student said, "I usually have pretty

good conversation with my American friend if there are only two of us. But once a third person (another American) appears, my American friend turns his head to talk to him. This situation happened several times. When we discuss on some topics, he pretty much listens to my ideas; however, once other Americans join us, he looks as if my opinion is never important to him."

According to the interviews, task-oriented contact brought Chinese and Americans together but might not generate favorable feelings toward Americans among the Chinese students. Apparently, the Chinese students' lack of ease with their American counterparts' attitude in interaction would lead to a more complicated process whereby the Chinese students adjusted themselves to the culturally different environment.

Social Interaction

Although the overall level of intensity and frequency of social interaction was low, the Chinese students reported somewhat different experiences with Americans. In most cases, social interaction was developed out of academic work in their departments and then developed beyond an academic relationship. This type of cultural contact brought about

deep understandings and therefore had greater impact on cultural values among Chinese students.

Most significantly, social interaction seemed to help stop stereotyping. One student said, "America is a very complicated society. Americans are very different peoples. You find dealers try to cheat your money, but you also find 'strangers' help you when you have a flat tire on highway. Some professors are very helpful; but some of them are very prejudiced".

Chinese students felt they understand American culture better through contact in friendship than superficial contacts. One student working on his Ph.D. mentioned that "Americans have less sense of ordering relationship. When they have different opinions, they speak out. They don't consider you are older and I am younger, or you are professor and I am a student. I feel this is better and healthier relationship". His father-in-law came to the U.S. as a visiting scholar in the same field as that of the student. He said, "when my father-in-law came to visit us, I might argue with him on a topic and I thought I could argue with him. I could know more and could be right. But we always ended up very unpleasant. Chinese think different opinions mean challenging, while Americans pay more

attention to facts". Many students pointed out American professors like to say "I don't know", while Chinese professors could never say that in front of students.

Several students noticed that in Chinese culture, they not only observed relationships ordered by status, but also observed people to be content with their own positions in life. In contrast, Americans were more open and straight forward in expressing their positions and opinions. Some Chinese students who learned to be direct with Americans in their everyday lives found it beneficial and effective. But they also saw conflicts when they dealt with other Chinese, especially with their parents who came to visit. One student told me her experience with her parents. She said "I love them, but can't tolerate when I ask them what they want and never get answers for sure. It puts a lot of pressure on me. I am very busy, but I have to guess what they want to eat and what they want to do during the weekend." Another student said the same thing happened to his parents: "I think I should tell them exactly what I think, but they sometimes couldn't bear it. They said I changed. They probably right. If in China, I would not tell them what I think. If I had to, I would find an indirect way to say it."

Cross-Cultural Attitudes

Attitudes toward cultural tradition and cross-cultural relationship varied among Chinese students and had a bearing on their adjustment to the American environment.

Most interviewees felt that there was a need to maintain their Chinese culture and Chinese identity. One student said, "even I am in the U.S. and have some American friends, I still feel much more comfortable to be with my Chinese friends. I think Chinese culture is deeply rooted in me. With American friends, we talk something superficial --news, sports, or simple talking about what we plan to do next weekend or what is going on my study. But with my Chinese friends, we talk about experiences, opinions, and feelings. Among Chinese friends, we exchange thoughts; with American friends, we exchange information. We communicate at different levels. Why? I think the reason is cultural background. Without common values and beliefs, you can't share hearts."

One student said "we are Chinese, no matter what we think, what we want, we are Chinese, Americans treat us as Chinese. Everywhere you go, you are reminded as Chinese." Many students stated that they had both Chinese friends and

American friends. However, making American friends was much more difficult than making Chinese friends. Beside the lacking cultural commonality, attitude played a role. One student said, "making American friend, we have to initiate. We have to lean to them and waiting for their response. Most of them feel they are the better ones."

The interviews found that the attitude toward maintenance Chinese culture and identity among Chinese students was related closely to the desire to keep relationships with other Chinese. Common values were the center part of friendship. Living in the United States, like fish out of water, Chinese students had to establish friendships with others who could share deeper cultural and emotional needs.

Reflection on Chinese Cultures

Chinese students' experience in the U.S. was one whereby they constantly evaluated and reevaluated their cultural tradition. Several of them felt they did not really like Chinese traditional cultural values when they were in China. Ironically, after they came to the U.S. and became acquainted with American values, they started recognizing the merits of Chinese cultural values. Other

students believed that their evaluation of Chinese cultural values was altered by the fact of being lonely in a foreign country.

A Ph.D. student in the Chemistry Department said, "when I was in China, my friends and I were all ideology deviants. We didn't like traditional culture and human relationship. Traditional cultures suppress freedom. In Chinese relationship, everybody's business was matters of everybody else. We always spent time together talking about how ideal American culture was. Especially during 1988 and 1989 [Tiananmen Square Event]. Our goal was to go to America. One of my friend went farther than us. His everyday words were "I don't like this.... if I was in the U.S...." He gained a nickname "Pretended foreigner". Now, we all in the U.S. We often talk through E-Mail. That friend like to say 'I don't like this, Chinese would never do things like that'. I think Chinese culture and American culture stay in the same, but we changed. When we change our position, our viewpoint changed and our judgment on Chinese culture changed. Perhaps, we tend to idealize Chinese cultural values when we feel lonely. When we think of our families and our friends, we think about our cultures. Home sick alters our rational evaluation of Chinese culture. We

idealized our cultural values, when we do not use 'present tense'".

Many students thought that they had become "marginal personalities". They were not Americans, but they were no longer the same Chinese either. Even they tried to maintain their cultural values and social contact, they knew that they could not maintain the kind of social network that they had in China and that their cultural sense was looser. One student said "I don't know what will happen if I go back home. I was prepared when I came to the U.S. I knew differences and conflicts were there. I didn't mind. Overall the difference is between me and Americans. But when I go back, the differences and conflicts are between me and my own people. How I am going to deal with it? I don't know."

Intergroup Desirability

Most interviewees believed that intergroup relationships were very desirable. They had very high expectations of making American friends when they first came to the United States. However, they soon found that "friends" meant something different in this individualistic society from the collectivist society where they originated.

Several students pointed out that friendships with Americans were more casual, single dimensional, and superficial than that with Chinese. For most of the Chinese, friendship was a multi-dimensional, deep, and long term relationship. Friendship provided mutual help and therefore it was both a goal in itself and a means for seeking support. According to these Chinese students, their expectation conflicted with Americans' concept of friendship. Most students thought that American friendship was fun-seeking and short-lasting. "Americans are very friendly people. It is easier to make friends, but you can't count on them if you need help". Some students believed Americans were very lonely people: "Not mention their friendship with us, how many real friends they have among themselves?"

The common view of friendship with Americans was that it was a secondary group relationship which was of specific utilities. A business student said, "I had some American friends and we work together for group projects. We generally cooperate very well and projects go on smoothly. But once the project finishes, the friendship finishes too". He also said that when group projects related to international business, "the American students are much more

interested in cooperating with me, because they know very little about the world outside America."

Chinese society is a relationship-based society in which friends can help friends get things done. The U.S. is a capitalist society in which money can bring services so that individuals can survive without friends. A student explained why friends meant so much to Chinese: "Chinese depend on relationship. When they need money, they can borrow from their friends instead of bank; when they want to buy a car, they rely on friends' judgement instead of advertisements; when they feel uncomfortable, they call their friends instead of going to see a doctor. Sometimes it makes sense, sometimes not; but this is the way we do things. We need friends, we trust them more than anybody else, even more than ourselves."

Interestingly, the understanding of how Chinese and Americans define friendship differently might not prevent a Chinese student from having friendships with both Chinese and Americans. As described by an interviewee, "With my American friends, I play computer games, joking, talking TV programs. The things we do together are not super-interesting but very happy. With my Chinese friends, we talking about our confusions, discussing social issues,

worrying our futures. The things we talk about may not be of fun, but they are the things we all concern about."

Reference Group Identification

In the Chinese students' U.S. experience, culture shock was often followed by role shock. Role shock was related to one's self identity. "Who I am" and "Which group I belong to" are the questions concerning role shock. Confusion among Chinese students came from being in a different society and interacting with both Americans and other Chinese. On the one hand, these students were labeled as an "outgroup" by Americans; on the other hand, they were blamed for being "Americanized" by their countrymen at home.

Among the interviewees, some really cared about how Americans thought about them and their opinions on issues, while most of them only cared about other Chinese' but not Americans' evaluation of them. This finding was consistent with the survey results (Less than one-third of the Chinese students was concerned about Americans' evaluation; less than one-fourth of the Chinese students identified Americans as their primary support group).

Chinese and American students valued different qualities. For instance, Chinese students assigned a high

value to academic excellence whereas Americans looked at this differently. One student said "Academic success is very important to us, but American students feel it is 'uncool'. The cool guys are those who party, date, and understand sports and entertainment." Another student said, "if you are too much dedicated to academic work and get good grades, they take you as a 'nerd'; if you don't show your understanding and your ability, they think you dumb. You get to make your own decision and can't rely on their judgment."

Because Chinese students had different expectations about friendship, as discussed earlier, they often felt that making American friends was not as rewarding as making Chinese friends. One student stated: "You can't rely on Americans. As friends, you can have a lot of fun with them, but if you count on them for help, you will be disappointed." This also explained why there were so few Chinese who identified Americans as primary supporters.

However, among those students who identified Americans as their reference group, the values of non-competitiveness, contentedness with one's position in life, and loyalty to superiors lost their moral importance. One student said "the more I am concerned about Americans' evaluation of me,

the more I become competitive. If you are not competitive, they think you are impotent." Another student said, "Something we used to value, like humbleness, loyalty, and contentedness, are actually irrational and useless for survival in this highly competitive, individualistic society."

Summary

Chinese students had very limited social contact with Americans. The existence of the Chinese community, different norms and interests between Chinese and American students, lack of interests on the American side, and conditional constraints were the major factors contributing to this phenomenon. While Chinese students' experience of task-related contact and voluntary social interaction with Americans varied, there appeared to be a high degree of dissatisfaction among the Chinese students.

Many students tended to maintain their traditional culture and identity in order to maintain their friendship with other Chinese who served as a reliable source of social and emotional support. Intergroup friendship was highly desirable among Chinese students, but different

expectations of friendship hindered establishing friendships with Americans.

There was evidence that social contact and cultural attitude about cultural tradition and cross-cultural interaction influenced cultural values among the Chinese students. For example, the traditional Chinese value of social order lost its appeal to those Chinese students who more frequently interacted with Americans in social activities and those who identified Americans as their reference groups.

Figure 11 is presented as the conclusion of the in-depth interview findings.

FIGURE 11

IN-DEPTH INTERVIEW FINDINGS

1. Chinese students' Cultural Contact with Americans are limited
 2. Task-Oriented Contact has less influence on Cultural Values
 3. Voluntary Social Interaction has greater impact on Cultural Values
 4. Cross-Cultural Interaction results in cultural value reevaluation
 5. Intergroup Desirability creates a multicultural personality
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CHAPTER VI

DISCUSSION AND CONCLUSIONS

The previous chapter presented the results of the research project, focusing on the various statistical analyses performed and the outcome of these efforts. In this chapter, attention turns to interpretation of the research findings, implications of these findings, and recommendations for further research. To begin, the fundamental research problem and basic research design are reviewed. Next, the results of the study are explained and their implications discussed. Finally, the research project is evaluated and future research is suggested.

Research Problem and Research Design

The current study probes the basic problem in international students' cultural adjustment abroad and cultural readjustment back home. The focus is on the transitional mechanism during the relocation process in international students. To capture the complexity of the research problem, the study utilized a triangulation approach in both theorizing and methodology.

The theoretical frameworks in addressing the research problems included the Value Change Perspective (Martin 1984; Kim and Ruben 1988), Cultural Contact Hypotheses (Hull 1978), Cultural Attitude Theory (Berry et al. 1986), and Reference Group Theory (Siegel and Siegel 1978; Brislin 1982). Based on these theories, a conceptual model was developed. In this model cultural values play a key role in international students' adjustment processes. If these students adapt to the host culture, they may function more effectively in the new cultural environment; if they maintain their cultural value during the process of studying abroad, they may readjust more smoothly to the home culture upon their graduation. Therefore, cultural values were taken as the dependent variable in the current study. The study then looked at three factors that were thought to affect the cultural values of international students. The three factors--cultural contact, cultural attitudes, and reference group identification--were treated as independent variables to predict cultural values.

The current research employed the quantitative method (surveys) and the qualitative method (in-depth interviews) to collect information on the research variables. Pilot studies and pre-tests were conducted to refine the survey questionnaire. The development of the questionnaire took

full advantage of existing scales with the majority of items being adapted or modified from existing measures. After the data were collected, factor analysis and Cronbach's alpha were used to check for construct validity and reliability. Reliability of the survey instrument was also examined through test-retests.

The primary research subjects were solicited from the Chinese student population at an American university. For the quantitative part of the study, a mail survey method was utilized. In order to increase response rate, follow-up telephone calls were made. Based on the telephone calls, additional questionnaires were delivered to those who had not responded. This effort allowed for a much higher response rate than usually found with college student subjects. A representative sample of in-depth interviews was drawn from the same group of Chinese students. The real life stories from the interviewees provided a vivid picture, which added "flesh" on the "bones" of this study.

For the second group of research subjects, Chinese students residing in China, the questionnaire surveys were administered in classrooms.

Research Findings

The study started with a demographic analysis and then

moved onto the tests of the six general hypotheses linking cross-cultural interaction and cultural values. The results of statistical analyses partially supported four of these hypotheses and revealed some effects regarding the two remaining hypotheses. The tests of hypotheses suggested that cultural interaction variables impacted cultural values among the Chinese students.

Among the demographic variables, gender, marital status, and age received close attention. Significant differences were found in two value dimensions--Group Integration and Self Protection--between single and married students for the whole sample. Surprisingly, no effect was found from marital status when only the American Chinese student group was examined. According to the results of the analyses, neither gender nor age influenced cultural values.

The results indicated that the duration of staying in the U.S. had a bearing on the Chinese students' cultural values. Particularly, those Chinese students who had stayed in the U.S. over one year viewed traditional Chinese cultural values more important than those new comers who had stayed in the U.S. less than a year.

Among the different independent variables, cultural contact, especially voluntary social interaction, impacted cultural values among Chinese students in the predicted

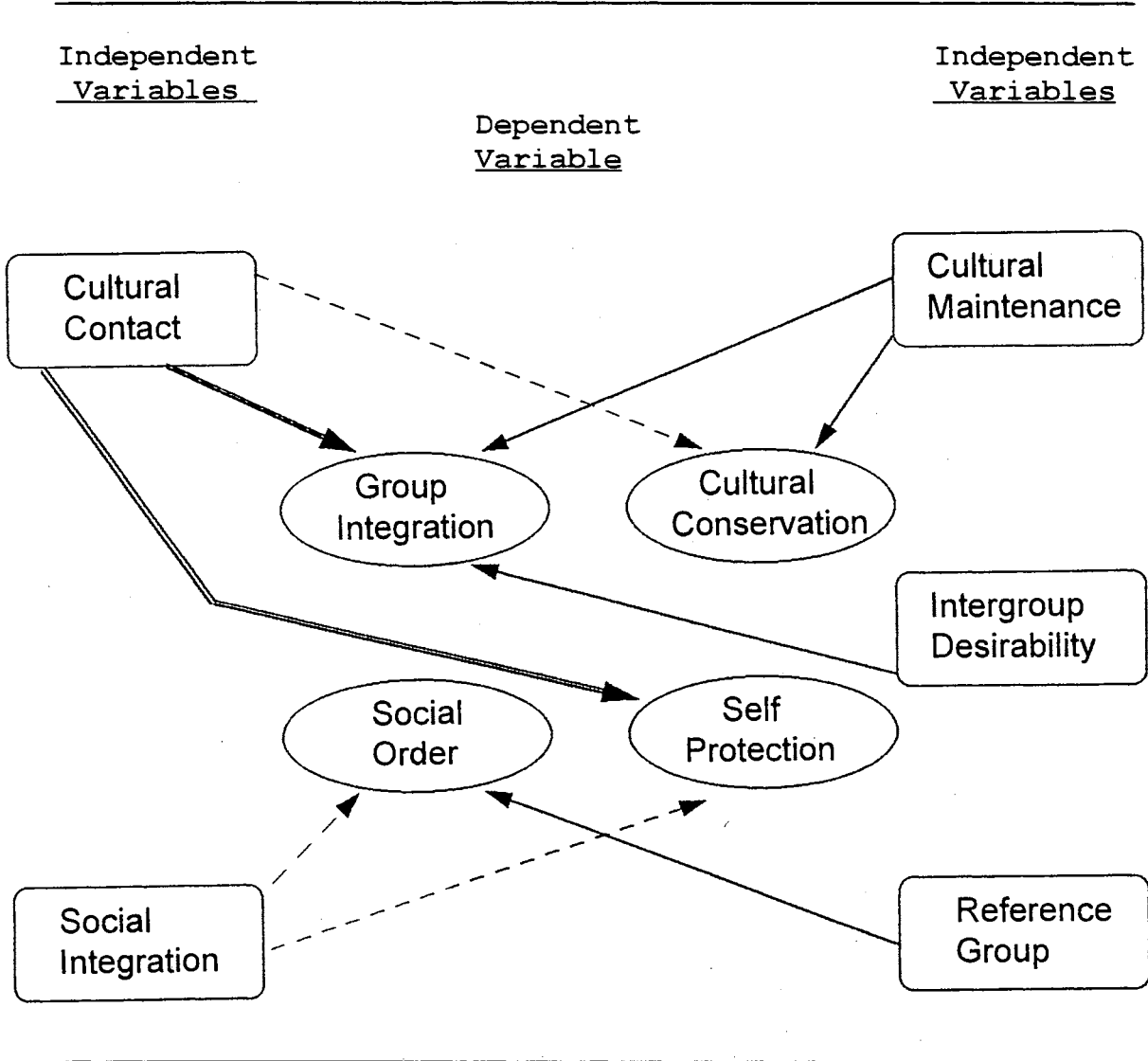
ways. Cultural attitudes, as reflected on cultural maintenance and intergroup desirability, also affected Chinese students' cultural values. Finally, reference group identification had a bearing on cultural values among Chinese students.

Based on the six general hypotheses, twenty-four sub-hypotheses were developed. Figure 12 illustrates the findings from hypothesis testing.

Among the four dimensions of cultural values, group integration was conditioned by country of residence, cultural maintenance, and intergroup desirability. The Contact group (American Chinese) had higher scores on group integration than the Non-Contact Group (Chinese Chinese). Both cultural maintenance and intergroup desirability increased the importance of group integration among American Chinese students. The dimension of social order was influenced by reference group identification; namely, the more Chinese students identify themselves with Americans, the less important the social order become among American Chinese students. The cultural conservation dimension is affected by cultural maintenance. The stronger the attitude toward cultural maintenance the higher the scores on cultural reservation among American Chinese. Finally, the dimension of self protection was impacted by country of

FIGURE 12

SUMMARY OF SURVEY FINDINGS



Note: ----- p < .10 (different but does not meet significant level for the current research).

————— p < .05.
 ===== p < .01.

residence. The Contact Group--American Chinese valued self protection higher than did the Non-Contact Group--Chinese Chinese.

Cultural Contact and Cultural Values

As hypothesized, the two Chinese student groups showed significant differences in three out of the four cultural value dimensions: group integration, cultural conservation, and self protection.

The statistical tests revealed that the importance of group integration was higher for the Contact Group--American Chinese students than for the Non-Contact Group--Chinese Chinese students. Five items were included in this value dimension: courtesy; harmony with others; reciprocation of greetings, favors, and gifts; trustworthiness; and resistance to corruption. As explained by several interviewees, as long as one resides in the U.S., these norms made sense in handling casual relationships in everyday life. Most American Chinese students were impressed by the superficial courtesy and harmonious relationships among Americans. Americans also were reported to be quick to trust others before knowing them well. By contrast, Chinese need years to build a trusting relationship. However, once a relationship is established,

it tends to be very deep and durable. Because of the high mobility in the U.S., people have to establish relations quickly. Consequently, most of these relations are likely to be shallow. Interestingly, while the American Chinese students usually could not borrow money from American friends, they might be offered house keys before an American host knows them well.

According to the statistical analysis, the value of cultural conservation was less important among the American Chinese group than among the Chinese Chinese group. This dimension contained four values: having few desires, chastity in women, having a sense of cultural superiority, and respect for tradition. Interviewees pointed out that the U.S. was a very materialist society, in which virtues like having few desires was no longer valued as they were in China. Similarly, with sexuality glorified by the mass media, chastity seemed out of fashion.

The statistical analysis also found that the perceived importance of self protection was higher among the American Chinese group than among the Chinese Chinese group. Four values were included in the self protection dimension: wealth, repayment of the good or the evil that another person had caused you, saving face, and keeping oneself disinterested. Self protection included both material and

psychological protection. Many interviewees mentioned that they felt insecure in the U.S. as they had left their family and friend network at home. Also the missing was the larger socialist system which controlled and yet took care everybody. Apparently, the sense of insecurity in financial situation and health care heightened the Chinese students' appreciation of material resource.

Voluntary Social Interaction and Cultural Values

As discussed earlier, country of residence serves as a fundamental condition in which cultural contact occurs. What are the effect of specific types of cultural contact? According to the results, voluntary social interaction with Americans led to more value change among the Chinese students residing in the U.S. In particular, these social interactions reduced the importance of social order but heightened the importance of self protection among the Chinese students.

The value dimension of social order included five items: non-competitiveness, contentedness with one's position in life, ordering relationships by status and observing this order, being conservative, and loyalty to superiors. In-depth interviews revealed that Chinese

students experienced high competition in the American academic environment and developed ambitions for up-ward mobility in American society. Consequently, the traditional Chinese merit for non-competitiveness and staying in line were no longer practical. They observed relative equal relationship between professors and students rather than the kind of Chinese social order between older and younger, teacher and student. They were also impressed by the independence of Americans; there was no moral commitment to superiors either in families or in the workplace.

As demonstrated in the statistical analysis, those students who had more social interaction with Americans viewed self protection as more important than those who had less social interaction with Americans. Through contact with Americans, Chinese students realized the importance of wealth for material security (wealth), self integrity, and group image (saving face) for psychological security. Further social interaction allowed more opportunities for Chinese students to understand what wealth could bring for life. Although the students realized the importance of wealth, they were also aware of the fact that they could do nothing to change their position as long as they were students. Therefore, "keeping oneself disinterested" became

very practical. Thus, the traditional Chinese value was reserved to fit a new cultural environment. "Saving face" was considered to be a typical Chinese phenomenon rooted in a highly group-oriented social environment. "Face" meant a lot for Chinese. It involved a person's public image and inner integrity. Face affected not only the person involved in the situation but also the group represented by the person. Growing up in a highly mobile and individualistic society, Americans spent little time worrying about their faces. Interestingly, increased interactions with Americans led the Chinese students to assign more importance to face saving, instead of leaving this traditional value behind. The secret seemed to lie in the Chinese students' consciousness of lower status and stereotyping. As described by several interviewees, they could experience racial prejudice deeply rooted in American society only through interfaces with Americans in social activities. Chinese students became more sensitive toward their images also because they were stereotyped as one group. Protecting face was not a personal or family matter; it is of race or ethnic significance. If one lost face, all Chinese lost face. They needed to be careful in protecting their collective "face".

Cultural Attitudes and Cultural Values

Based on the statistical analysis, Chinese students viewed group integration as important when they tended to maintain their cultural identity as well as when they tried to establish relationships with Americans. This finding sounded ironic: How could the desire for cultural maintenance and the desire for intergroup interaction both enhance the same Chinese value? Perhaps it is because the value of group integration is seen as being applicable to interpersonal relationships in general and not just limited to narrowly defined ingroup relationships. Therefore, when Chinese students valued their own culture and cultural identity, the group integration dimension was important; when they valued relationship with Americans as well, a socially cohesive orientation also applied.

The analysis found that Chinese students who had positive attitudes toward maintaining their cultural and ethnic identity valued their tradition as more important than those who had less positive attitude toward cultural maintenance. These findings were consistent with prior conceptualizations. The willingness to maintain traditional culture was conceivably associated with a positive attitude toward preserving their cultural values.

The study also revealed the impact of reference group

identification on the value dimension of social order. Compared to the Chinese students who perceived Americans as their reference group, those who took Chinese as their reference group assigned greater importance to the values included in this dimension. This finding was consistent with former literature.

In an intercultural environment, value change is largely unavoidable. However, it is difficult to predict the direction of this change and to identify the factors affecting the change. According to the findings of this study, Chinese students became less concerned about conserving their cultural tradition after they had moved to the U.S. However, the results also indicated that those who stayed more than one year assigned greater importance to cultural conservation than those new comers. This latter finding was surprising but informative. Cultural values as complex phenomena are conditioned by different factors. Apparently, value change cannot be predicted solely by incidences of cultural contact. As pointed out by several interviewees, if causal, task-based contact with Americans heightened rather than lessened the conscious of status discrepancy and brought about uncomfortable feelings among Chinese students, they might simply withdraw from such cultural contact and, as a defensive reaction, reevaluate

their cultural tradition from a new, more positive perspective. Only those students who voluntarily interacted with Americans in social settings had a better chance to overcome contact difficulties and manage to negotiate between two cultures, and therefore develop into multicultural personalities.

Research Contributions

The current study makes several contributions to value studies, both theoretically and methodologically. First, this study approaches cultural values from a broader picture of cross-cultural interaction, rather than isolates their role as a predictor of cultural contact or cultural adjustment. Second, dynamic value change rather than static value differences was the focal point of this study. Third, the study triangulated different theoretical perspectives to explore the complexity of value change. Finally, the study applied both quantitative and qualitative methodologies so that a certain level of scientific rigor was assured.

In the existing literature on cross-cultural interaction, cultural value often is treated as a predictor variable. For example, many scholars have focused attention on the impact of value discrepancies on sojourner adjustment (e.g., Ward and Searle 1991). While the links between value

difference and its possible behavioral consequences are important, they are only part of the entire chain of cross-cultural interaction. As outlined earlier, while cultural values have significant impact on international students' effectiveness in both functioning in host societies and reentering the native environment, they in turn are influenced by cross-cultural contact as well as attitudes toward cultural maintenance and intergroup interaction. This second link has not received due attention in the literature. To overcome this shortcoming, this study considered cultural values as the dependent variable and observed the extent to which cultural contact and other factors led to change. In so doing, this study helps to provide a comprehensive picture of cross-cultural interactions.

Concentrating on the dynamic nature of cultural values rather than the static comparison of value systems, the study used two Chinese student groups to create a quasi-experimental research setting. This research design enabled the examination of our speculation that country of residence was a fundamental condition of cultural contact. Then, the study distinguishes two types of cultural contact, task-oriented information exposure and voluntary social interaction, and investigated how they differently

influenced cultural values among the Chinese students who reside in the U.S. In other words, the study followed a sequential process that allowed for a deeper understanding of the mechanism of intercultural contact with respect to cultural values.

While diverse perspectives have been offered to understand cultural values and factors affecting their formation and change. However, scholars often limited themselves to one single perspective and believed that was the only explanation. The current research views cultural contact is an essential predictor for value change, but cultural maintenance is also considered to hinder this change and intergroup desirability and reference group shift may increase the level of this change. Therefore, cultural attitudes and reference group theories are used in conjuncture with the cultural contact theory to provide a more comprehensive account of the value change phenomenon.

While triangulation is widely advocated as a research strategy in social sciences, its practice has been rare. In the field of value studies, psychologist tradition is interested in aggregate response on values, which hinders the specificity of individual differences; Anthropologist tradition, on the other hand, bases on limited informants and researchers' subjective interpretation. The current

study takes one step in using both quantitative and qualitative methods for data collection. As evidenced in previous discussions of the research findings, the use of in-depth interviews in conjunction with questionnaire survey greatly enhanced our understanding of the research question. Without the rich information generated from personal interviews, the analyses of the survey data sometimes were impossible.

Practical Implications

Three groups can be benefited from the study: the host institutions which receive international students and provide assistance in their cultural adjustment; the home countries which prepare the students for their overseas journey and later for their home coming; and international students themselves who are likely to experience two cultural adjustments which can have a significance bearing on their task performance, psychological well-being, and the entire life experience.

For international students, cultural value discrepancy directly relates to social adjustment. When international students enter into a new cultural environment, they may have to overcome initial culture shock by starting to establish social affiliation with host people. While the

effectiveness of such adjustments is influenced by the value discrepancy between international students and the host community, the value discrepancy may be more or less altered depending on the way in which the representatives of the two cultures are in contact. During their stay in a foreign cultural environment, international students constantly encounter value conflicts; and coping with these conflict often involves adjustments in cultural values. Sometimes unconsciously but often consciously, the students influenced by culturally limited information through American mass media. If they limited themselves to this type of cultural contact, however, they are less subject to value change. But, when they voluntarily get involved in social activities with members of host culture, a change in culture values is probably underway. From a utilitarian perspective, adapting to host culture may be a viable way for coping with psychological difficulties. However, such an adjustment strategy may not be justified if a student will eventually go back to her/his home country and therefore to experience another cultural adjustment. Furthermore, such a strategy may be considered as "politically incorrect" on some ideological grounds.

Understanding the linkages between cultural values and cultural contact and other correlates would also be

beneficial to educators and administrators in the universities receiving international students. This understanding could provide them with culturally appropriate knowledge for helping international students through their cultural transition and adaptation in the U.S. education system. More opportunities, for example, could be created for social interaction between the international students, American students and the local community. Cross-cultural counseling could also be provided to international students who face difficulties in the adjustment process. While these students may experience tensions due to value conflict with local ones under different circumstances, a most fundamental case involves their classroom performance. In this situation, besides developing new expectations about classroom norms, international students often have to alter their own to achieve their educational goals.

The home countries seem to take different approaches to deal with these issues. From a constructive perspective, pre-departure cultural orientation may be carried out to help the students to establish appropriate expectations about the host country cultural system. With a preventive stance, home countries may select those students who are considered to be culturally conservative. Once the students have relocated in a foreign countries, different methods can

be utilized to facilitate value maintenance among these students. For instance, they may be regularly provided with educational materials by the home country. However, as demonstrated in this research, a decisive factor leading to value change among international students is the fact they are residing in a different culture! Therefore, upon going back home, cultural value change should be expected. Appropriate methods may be prepared for facilitating their readaptation to their home environment. Nevertheless to say, those changes in the returning students should be appreciated as long as they are contributing to the betterment of the motherland.

Limitations of the Research

As always, limitations temper the research findings. Identifying the limitations help bring a proper perspective on the findings and thus enhance the value of research. Several limitations are identified with respect to the survey sample, the research design, the conceptual base of the research, and the difference of measurement of value change.

The Sample

While an overall response rate for this research

(94.2% for Chinese Chinese, 86.3% for American Chinese) was acceptable for a study of this nature, the sample size was relatively small (n=292). Especially, only 107 participants were included in the American Chinese group, which was of central interest to the current research. First, the sample size may cast doubt on the results of factor analyzing the current data. As demonstrated earlier, the current data led to a factor solution different that of the Chinese Value Survey (CCC 1977). Because of the limited size of the present sample, I caution that the factor pattern identified in this study may not be stable if sample size is substantively enlarged.

Second, the major sample of the study is restrained in one university in the United States and purely consists of college students. The homogeneity of the sample does not endanger the research goal of theory testing, but certainly sets a limit to generalizing the research results to more heterogeneous population.

Third, the current sample was drawn from one single country, which also puts a limit to our claim of generalizability. The study may have well described how cross-cultural contact results in value change among Chinese students in the U.S., but again its findings may be specific to members of this unique culture.

The Research Design

Although the topic has been studied for several years by the author, the dissertation adopts a one-shot research design. The use of a control group--the Chinese students in China--allows for examining the effect of country of residence. However, in investigating how the cultural values are influenced by ongoing interactions with the host country among Chinese students residing in the U.S., information was obtained only at one point of time. In research of value change, longitudinal studies might provide stronger inferences.

Another shortcoming of the research design is that the lack of a dyadic perspective. Cross-cultural interaction by nature is a dyadic relationship. Ideally, collecting information from both sides of the dyad would provide a more comprehensive picture of the relationship. Due to various restraints, the current study focused only on one side of this dyad, the Chinese. It would be interesting to know how Americans perceive the same cross-cultural interaction process.

The Conceptual Model

A main objective of the study is to explore more fully

the relationship between cross-cultural interaction and cultural values in order to find the mechanism and the dynamics of value change. I started this inquiry by challenging the existing literature for its failure to provide a comprehensive account of the cultural contact ->cultural value->cultural adjustment chain. While cultural change or reservation is an important issue by itself, the ultimate goal is to understand how cultural attitudes lead to social actions. For example, an understudied question is how value change among international students relates to their cultural adjustment and social well-being in a host society and to their cultural readjustment upon reentrance to their home countries. A comprehensive understanding of the total process also requires the inclusion of other contextual variables that may confound intergroup contacts in the making of international students' experience of cultural adjustment and readjustment.

The Measurement

This study applied the measurement of Chinese Value Survey (1987) as dependent variable of cultural values. Those cultural values were very important for the nature of the current study, because they were the criterion variable used for making prediction. However, the factor analysis

of the current study resulted in a very different factor pattern from the Chinese Value Survey. Factor analysis had a purpose of variable reduction for easy controlling of the data. Because of the differences on how to reduce data, the current study used both solutions of factor analysis to examine the current data. Very different results were found from two examinations. Although the author had enough confidence of using her own factor analysis results based on validity and reliability tests, some of the findings were not as hypothesized. Besides above discussed limitations, two other possibilities were deserved discussion. The first problem came from the samples. The samples used for the two studies were very different. As discussed earlier, the sample of the Chinese Value Survey was students from 22 different countries all over the world, while the current study use only Chinese students in China and in the United States. The authors of the Chinese Value Survey intended to find a universal standard for cultural values. Do they exist? The next problem came from the conceptual model. The reliability for the four factor model of the Chinese Value Survey has have yet to be confirmed. This instrument came out from a single study and more tests need for its construct reliability. Actually, Bond (1988) applies this 40-item questionnaire among 21 countries and only two

factors with 17 items emerged from his studies.

Suggestions for Future Research

Several suggestions can be made for future research. They include: extending research to other research settings and to other country groups, continuing this study into a longitudinal research, and adding an ultimate variable of cultural adjustment to the conceptual model.

In light of the limitation on the generalizability of the current research, an immediate remedy can be made by extending the research to three or more universities in the U.S. When selecting the universities, geographic location and types of universities should be taken into account. Such replications will secure larger sample size as well as diversified cultural environments as the research setting. Future research may also be extended to international students of different national origins and destinations, which provides another way to enhance generalizability of research findings.

Longitudinal research is strongly recommended. This will not only allow for examination of adjustment over time, but will also assist in elucidating the temporal relationships amongst predictor variables.

To reflect on the other side of the cultural interaction process, future studies should include American students as a sub-sample. With appropriate research design and analysis techniques, the chance to achieve more accurate, comprehensive understanding of the phenomenon will be significantly increased.

Finally, future research should build on refined models that incorporate such criterion variables as cultural adjustment and other critical correlates. Ultimately, the value of scientific research can only be judged by how well it is able to answer the questions that are associated with the well-being of the members of the international communities--international students in this case.

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APPENDIX 1

COVER LETTER

(Survey Questionnaire)

Oklahoma State University

COLLEGE OF ARTS AND SCIENCES

Department of Sociology
Stillwater, Oklahoma 74078-0395
006 Classroom Building
405-744-6105, 6104, FAX 405-744-5780

August 28, 1995

Dear student:

I am a student working on my Ph.D. degree in the Sociology Department at Oklahoma State University. As a Chinese student, I am very interested in the cross-cultural interaction between Chinese students and American students. My research may help Chinese students adjust to American life and help Americans have a better understanding of International students in general.

Please help me by completing the enclosed questionnaire. Obtaining responses from you is very important. It will take you about 20 minuets to complete the questions. There is no right or wrong answers. Your answer to the questionnaire is voluntary. The information you provide will be held in strict confidence.

I appreciate your willingness to participate in this important survey. Please return your completed questionnaire by using the enclosed envelop on or before September 15, 1995. If you have any comment, please contact me at the following address: Sociology Department, Oklahoma State University, Stillwater, OK 74078, or call me in the office (744-6105) or at home (744-4499). You can also reach me by E-Mail: jiangua@osuunx.ucc.okstate.edu.

Thank you very much for your participation and assistance. I look forward to your prompt response.

謝謝您的幫助!

Sincerely,

Jian Guan 關建

Jian Guan

APPENDIX 2

COVER LETTER

(Follow-Up Survey Questionnaire)

OKLAHOMA STATE UNIVERSITY



Department of Sociology
006 Classroom Building
Stillwater, Oklahoma 74078-4062
405-744-6105 or 405-744-6104
FAX 405-744-5780

October 20, 1995

Dear Chinese Student:

I am currently conducting a research regarding the cross-cultural interaction between Chinese students and American students for my dissertation. As a Chinese student, your opinion toward these questions is very important.

I heard some students mentioned they were very interested in this research, but the deadline was too close to respond. In order to have all your voices heard, I extend your response time for another two weeks. I also enclosed another questionnaire for your convenience if you have not received or you can not find the questionnaire.

I also realize that you are very busy, so this questionnaire is designed by circling choices. It takes you only about 20 minutes to complete. Please return your questionnaire before November 4, 1995. If you have already sent out the first questionnaire, please ignore this one.

Thank you very much for your participation. I am looking forward to reading what you have to say.

Sincerely,

A handwritten signature in black ink, appearing to be the Chinese characters '关健' (Guan Jian).

Jian Guan

APPENDIX 3

SURVEY QUESTIONNAIRE

(English Version)

Part C. Please indicate the extent of agreement you find in each situation by circling the number corresponding to your response.

	Strongly Disagree		Neutral			Strongly Agree	
1. I am satisfied with my academic progress	1	2	3	4	5	6	7
2. I take opportunities to achieve my goals in life	1	2	3	4	5	6	7
3. I keep good relationships with Americans	1	2	3	4	5	6	7
4. I know how to communicate with Americans	1	2	3	4	5	6	7
5. I have feelings of competence	1	2	3	4	5	6	7
6. I have a sense of achievement	1	2	3	4	5	6	7
7. I am satisfied with my personal interaction with Americans . .	1	2	3	4	5	6	7
8. I am satisfied with my overall relationship with Americans . .	1	2	3	4	5	6	7
9. I feel disliked by Americans because of my cultural values . .	1	2	3	4	5	6	7
10. I feel discriminated against because of my nationality	1	2	3	4	5	6	7
11. My interactions with Americans are helpful	1	2	3	4	5	6	7
12. Overall, my interactions with Americans are adequate	1	2	3	4	5	6	7
13. I am satisfied with my overall experiences in the U.S. . . .	1	2	3	4	5	6	7

Part D. Please indicate how comfortable you would feel in the following situations. Circle the number that is closest to how you would feel.

	Very Uncomfortable		Neutral			Very Comfortable	
1. Living in the same neighborhood with Americans	1	2	3	4	5	6	7
2. Being in the same study group with Americans	1	2	3	4	5	6	7
3. Talking with Americans	1	2	3	4	5	6	7
4. Having an American as a roommate	1	2	3	4	5	6	7
5. Playing games with Americans	1	2	3	4	5	6	7
6. Having an American for a close friend	1	2	3	4	5	6	7
7. Having an American for a lover	1	2	3	4	5	6	7
8. Marrying an American	1	2	3	4	5	6	7

Part E. Please circle the following questions according to each requirement.

1. How many years have you been studying in the U.S.? _____
2. Where are you living now?
 - 1 = university resident hall for all students
 - 2 = university resident hall mainly for international students
 - 3 = fraternity or sorority mainly for American students
 - 4 = university married student housing
 - 5 = off-campus house or apartment
 - 6 = others, be specific _____
3. Who are the people you are sharing a room or house with (**circle all that apply**)?
 - 1 = American students
 - 2 = American non-students
 - 3 = By myself
 - 4 = Students from my home country
 - 5 = Other international students
 - 6 = My family
4. When you are in the company of others, are they mainly (**choose one**):
 - 1 = American students
 - 2 = American non-students
 - 3 = Students from my home country
 - 4 = Other international students
5. Who are the good friends you made since your arrival (**rank from 1-4, if more than one apply**)?
 - _____ American students
 - _____ American non-students
 - _____ Students from my home country
 - _____ Other international students
6. Who are your "best friends" in this country (**choose one**)?
 - 1 = American students
 - 2 = American non-students
 - 3 = Students from my home country
 - 4 = Other international students
7. Please indicate the persons or group of people whose evaluation of you concern you the most (**choose one**)?
 - 1 = close American friends at this university
 - 2 = close friends from my home country at this university
 - 3 = close friends from other countries at this university
 - 4 = teachers or other adults at this university
 - 5 = parents or friends at home country
8. Please identify the group or persons who are the primary support of your personal values or goals (**choose one**).
 - 1 = close American friends at this university
 - 2 = close friends from my home country at this university
 - 3 = close friends from other countries at this university
 - 4 = teachers or other adults at this university
 - 5 = parents or friends at home country
9. If you have a free evening to attend a party, which one would you prefer to go (**please rank in order of preference—1, 2, 3, 4**).
 - _____ Go to a party sponsored by an international group
 - _____ Go to a party sponsored by a student group from my home country
 - _____ Go to a party sponsored by an American student group
 - _____ Go to a party sponsored by an American faculty group

Part F. Please think of your closest American friend and choose your best response for each question by circling the number corresponding to your response.

	Not at all	Neutral					Completely

1. Do you accept this person as he/she is?	1	2	3	4	5	6	7
2. Does this person disappoint you?	1	2	3	4	5	6	7
3. Do you respect this person?	1	2	3	4	5	6	7
4. Can you count on this person in times of need?	1	2	3	4	5	6	7
5. Do you know what kind of person he/she is?	1	2	3	4	5	6	7
<hr/>							
6. Are you happy in your relationship with this person?	1	2	3	4	5	6	7
7. Does your friend make you feel proud of yourself?	1	2	3	4	5	6	7
8. Do you feel that your friend cares for you as much as you care for him/her?	1	2	3	4	5	6	7
9. Are you trying to change things that you do to make the relationship better between the two of you?	1	2	3	4	5	6	7
10. Is your relationship one of equals?	1	2	3	4	5	6	7

Part G. Please indicate the direction which you feel best describes the situation by circling the number corresponding to your response.

	Very Negative	Neutral					Very Positive

✓ 1. In what way has your stay in the U.S. affected your view of your culture?	1	2	3	4	5	6	7
✗ 2. In what way has your stay in the U.S. affected your view of American culture?	1	2	3	4	5	6	7
✓ 3. What is the general attitude of American people toward your country?	1	2	3	4	5	6	7
✓ 4. What is the general attitude of American people toward your culture?	1	2	3	4	5	6	7
<hr/>							
5. In what way has your living in the U.S. affected your personal development?	1	2	3	4	5	6	7
6. In what way has your living in the U.S. affected your intellectual development?	1	2	3	4	5	6	7
7. In what way has your living in the U.S. affected your feelings of self-confidence?	1	2	3	4	5	6	7
✗ 8. In what way has your stay in the U.S. affected your ability to communication?	1	2	3	4	5	6	7

Part H. Please indicate the extent to which you agree by circling the number corresponding to your response.

	Strongly Disagree	Neutral					Strongly Agree
	1	2	3	4	5	6	7
✓ 1. My cultural values are different from American cultural values	1	2	3	4	5	6	7
2. Americans and I perceive things similarly	1	2	3	4	5	6	7
3. I behave differently from Americans	1	2	3	4	5	6	7
4. It is important to maintain my cultural values	1	2	3	4	5	6	7
5. It is important to maintain relationships with students from my home country	1	2	3	4	5	6	7
6. It is important to maintain my ethnic identity	1	2	3	4	5	6	7
7. I speak my country's language with students from my country even when Americans are present	1	2	3	4	5	6	7
8. In most situations, I behave according to my cultural customs even with Americans	1	2	3	4	5	6	7
9. It is important to understand how Americans think	1	2	3	4	5	6	7
10. It is important to adjust to the values of Americans	1	2	3	4	5	6	7
11. It is important to learn to accept Americans in spite of the cultural differences I perceive	1	2	3	4	5	6	7
12. It is possible to adapt American norms without compromising my own cultural norms	1	2	3	4	5	6	7
13. It is important to establish friendships with Americans	1	2	3	4	5	6	7
✓ 14. It is important to learn how to be happy living in a culture with a world view different from mine	1	2	3	4	5	6	7
15. In most situations, I behave according to American ways	1	2	3	4	5	6	7
16. I try to understand the way American friends do things	1	2	3	4	5	6	7
✗ 17. I make necessary adjustments to my American friends' ways of behaving	1	2	3	4	5	6	7
✓ 18. I learn from my American friends in doing things	1	2	3	4	5	6	7

Part I. Please indicate the extent to which you think the following is important (in a positive way) by circling the number corresponding to your response.

	No								
	Importance	Neutral						Supreme Importance	
1. Filial Piety (obedience to parents, respect for parents, support of parents) 孝	1	2	3	4	5	6	7	8	9
2. Industry (working hard) 勤勞	1	2	3	4	5	6	7	8	9
3. Tolerance of others 容忍	1	2	3	4	5	6	7	8	9
4. Harmony with others 隨和	1	2	3	4	5	6	7	8	9
5. Humbleness 謙虛	1	2	3	4	5	6	7	8	9
6. Loyalty to superiors 忠于領導	1	2	3	4	5	6	7	8	9
7. Observation of rites and social rituals 禮儀	1	2	3	4	5	6	7	8	9
8. Reciprocation of greetings, favors, and gifts 禮尚往來	1	2	3	4	5	6	7	8	9
9. Kindness (forgiveness, compassion) 仁愛	1	2	3	4	5	6	7	8	9
10. Knowledge (education) 學識 (教育)	1	2	3	4	5	6	7	8	9
11. Solidarity with others 團結	1	2	3	4	5	6	7	8	9
12. Moderation, following the middle way 中庸之道	1	2	3	4	5	6	7	8	9
13. Self-cultivation 修養	1	2	3	4	5	6	7	8	9
14. Ordering relationships by status and observing this order 尊卑有序	1	2	3	4	5	6	7	8	9
15. Sense of righteousness 正義感	1	2	3	4	5	6	7	8	9
16. Benevolent authority 恩威并施	1	2	3	4	5	6	7	8	9
17. Non-competitiveness 不重競爭	1	2	3	4	5	6	7	8	9
18. Personal steadiness and stability 穩重	1	2	3	4	5	6	7	8	9
19. Resistance to corruption 廉潔	1	2	3	4	5	6	7	8	9
20. Patriotism 愛國主義	1	2	3	4	5	6	7	8	9
21. Sincerity 誠懇	1	2	3	4	5	6	7	8	9
22. Keeping oneself disinterested 清高	1	2	3	4	5	6	7	8	9
23. Thrift (saving money) 儉樸	1	2	3	4	5	6	7	8	9

	Importance			Neutral			Importance		
24. Persistence (perseverance) 耐力 (毅力)	1	2	3	4	5	6	7	8	9
25. Patience 耐心	1	2	3	4	5	6	7	8	9
26. Repayment of both the good or the evil that another person has caused you 報恩與報仇	1	2	3	4	5	6	7	8	9
27. Having a sense of cultural Superiority 文化優越感	1	2	3	4	5	6	7	8	9
28. Adaptability 適應環境	1	2	3	4	5	6	7	8	9
29. Prudence (carefulness) 小心 (慎)	1	2	3	4	5	6	7	8	9
30. Trustworthiness 信用	1	2	3	4	5	6	7	8	9
31. Having a sense of shame 知恥	1	2	3	4	5	6	7	8	9
32. Courtesy 有禮貌	1	2	3	4	5	6	7	8	9
33. Contentedness with one's position in life 安分守己	1	2	3	4	5	6	7	8	9
34. Being Conservative 保守	1	2	3	4	5	6	7	8	9
35. Saving face 要面子	1	2	3	4	5	6	7	8	9
36. Having a close, intimate friend 知己之交	1	2	3	4	5	6	7	8	9
37. Chastity in women 貞節	1	2	3	4	5	6	7	8	9
38. Having few desires 寡欲	1	2	3	4	5	6	7	8	9
39. Respect for tradition 尊尚傳統	1	2	3	4	5	6	7	8	9
40. Wealth 財富	1	2	3	4	5	6	7	8	9

If you are interested in a follow-up interview and/or receiving a copy of this research result, please check the following number:

1 = I am interested in a follow-up interview and receiving a copy of the research result.

Name _____ Phone _____

2 = I am interested in receiving a copy of research result.

Name _____ Address _____

Thank you very much for your participation!!! 謝謝您的幫助!

APPENDIX 4
SURVEY QUESTIONNAIRE
(Chinese Version)

调查问卷

这份问卷是为了解价值观念而设计的。此问卷本著不记名，自愿填写的原则。问题的答案只表明您的看法，没有对错之差。衷心感谢您的合作。

一，请回答下列问题，在符合您情况的数字上划圈。

- 1, 年龄： 1 = 25岁以下 2 = 25-30岁 3 = 30-35岁 4 = 35岁以上
- 2, 性别： 1 = 男 2 = 女
- 3, 婚姻状况： 1 = 未婚 2 = 已婚
- 4, 您来自 _____ 省(市)。
- 5, 在校时间： 1 = 1年以下 2 = 1-2年 3 = 3-5年 4 = 5年以上
- 6, 专业 _____。
- 7, 您学过英语吗？ 1 = 没有 2 = 学过 _____ ， 学了 _____ 年。

二，请阅读如下问题，根据这些问题对您的重要性圈划适当的数字。数字越大越重要。1代表最不重要，9代表最重要。中间的数字表示比较不重要，无所谓，比较重要等不同程度。

	最不重要					最重要			
1, 孝顺 (尊重, 服从, 赡养父母)	1	2	3	4	5	6	7	8	9
2, 勤劳	1	2	3	4	5	6	7	8	9
3, 容忍 (宽厚, 忍让)	1	2	3	4	5	6	7	8	9
4, 随和	1	2	3	4	5	6	7	8	9
5, 谦虚	1	2	3	4	5	6	7	8	9
6, 忠于领导	1	2	3	4	5	6	7	8	9
7, 礼仪 (讲究规矩)	1	2	3	4	5	6	7	8	9
8, 礼尚往来	1	2	3	4	5	6	7	8	9
9, 仁爱 (谅解, 人情)	1	2	3	4	5	6	7	8	9
10, 学识 (教育)	1	2	3	4	5	6	7	8	9
11, 团结	1	2	3	4	5	6	7	8	9
12, 中庸之道 (避免走极端)	1	2	3	4	5	6	7	8	9
13, 修养 (注意培养自己的品德)	1	2	3	4	5	6	7	8	9
14, 尊卑有序	1	2	3	4	5	6	7	8	9
15, 正义感	1	2	3	4	5	6	7	8	9
16, 恩威并施 (领导既要有权威又要爱护下属)	1	2	3	4	5	6	7	8	9
17, 不鼓励竞争意识	1	2	3	4	5	6	7	8	9
18, 稳重	1	2	3	4	5	6	7	8	9
19, 廉洁	1	2	3	4	5	6	7	8	9
20, 诚恳	1	2	3	4	5	6	7	8	9

(续背面)

21, 爱国主义	1	2	3	4	5	6	7	8	9
22, 清高	1	2	3	4	5	6	7	8	9
23, 俭朴	1	2	3	4	5	6	7	8	9
24, 耐力 (有毅力, 能坚持)	1	2	3	4	5	6	7	8	9
25, 耐心	1	2	3	4	5	6	7	8	9
26, 报恩与报仇	1	2	3	4	5	6	7	8	9
27, 文化优越感 (中国文化最优越)	1	2	3	4	5	6	7	8	9
28, 适应环境	1	2	3	4	5	6	7	8	9
29, 小心 (谨慎)	1	2	3	4	5	6	7	8	9
30, 信用	1	2	3	4	5	6	7	8	9
31, 知耻 (荣辱感)	1	2	3	4	5	6	7	8	9
32, 有礼貌	1	2	3	4	5	6	7	8	9
33, 安分守己	1	2	3	4	5	6	7	8	9
34, 保守	1	2	3	4	5	6	7	8	9
35, 要面子	1	2	3	4	5	6	7	8	9
36, 知己之交 (结交知心朋友)	1	2	3	4	5	6	7	8	9
37, 贞节 (妇女守节操)	1	2	3	4	5	6	7	8	9
38, 寡欲 (不追求物质享受)	1	2	3	4	5	6	7	8	9
39, 尊尚传统	1	2	3	4	5	6	7	8	9
40, 财富	1	2	3	4	5	6	7	8	9

三, 假设您在美国读书, 请回答您在多大程度上同意下列说法。数字越大表明同意的程度越高。1代表完全不同意, 9代表完全同意。中间的数字表示不同意, 无所谓, 以及基本同意等不同程度。

	完全不同意									完全同意
1, 我愿意与美国人交朋友	1	2	3	4	5	6	7	8	9	
2, 我愿意参与当地人的日常社会活动	1	2	3	4	5	6	7	8	9	
3, 与中国同学保持交往是重要的	1	2	3	4	5	6	7	8	9	
4, 我愿意与美国同学一起学习	1	2	3	4	5	6	7	8	9	
5, 我能够与美国人保持良好的关系	1	2	3	4	5	6	7	8	9	
6, 美国人会因为我是外国人而歧视我	1	2	3	4	5	6	7	8	9	
7, 我不知道如何与美国人交往	1	2	3	4	5	6	7	8	9	
8, 我相信在美国的经历是会令人满意的	1	2	3	4	5	6	7	8	9	
9, 在学习英语的同时了解西方文化是必要的	1	2	3	4	5	6	7	8	9	
10, 学习西方文化与保持自己的文化是不矛盾的	1	2	3	4	5	6	7	8	9	
11, 中国的文化价值观与美国的不一樣	1	2	3	4	5	6	7	8	9	
12, 保持中国文化是重要的	1	2	3	4	5	6	7	8	9	

謝謝您的幫助!

APPENDIX 5
INTERVIEW BRIEF

INTERVIEW BRIEF

This interview brief is designed to understand the phenomenon of cross-cultural contact and provide a detailed description and explanation of the impact of intercultural relationship on value change. It is voluntary. There is no right or wrong answers. The information you provide will be kept confidential. Thank you for your participation.

1. What has impressed you the most after your coming to the United States?
2. What are the major differences between American students and Chinese students?
3. How do you view the relationship between Americans and Chinese students? Please explain.
4. Are you satisfied with your relationship with Americans? Please explain.
5. Has your time in the United States effected your view of Chinese culture? Please explain.
6. Has your stay in the United States effected you in any way? Please explain.
7. Do you think it is important to maintain a relationship with other Chinese in the United States? Please explain.

8. Do you think it is necessary to maintain Chinese culture while in the United States? Please explain.
9. Do you think it is possible to maintain Chinese values in the United States? Please explain.
10. Do you think it is important to develop relationships with Americans? Please explain.
11. Do you think it is necessary to accept Americans despite cultural differences? Please explain.
12. Do you think it is possible to adopt American values without compromising your own cultural values.
13. Could you live happily in a culture with a value system different from your own?
14. What ways have you used to develop desirable relationships with Americans?
15. What some suggestions would you give to new Chinese students to help them adjust to the American way of life?

Thank you very much for your participation in the interview. I appreciate your assistance and contribution to this study. If you have further comments and questions, please feel free to call me. I can be reached at either of the numbers:

(405) 744-6105 (office)
(405) 744-4499 (home)

Thank you again!

2
VITA

Jian Guan

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE IMPACT OF CROSS-CULTURAL INTERACTION ON
CULTURAL VALUES: A STUDY ON CHINESE STUDENTS

Major Field: Sociology

Biographical:

Education: Received Bachelor Degree in Political Sciences from the Central Nationality University, Beijing, in January, 1982; received Masters' Degree in Philosophy from the People's University of China, Beijing, in June, 1987; received Masters' Degree in Anthropology from the University of Hull, Hull, in June, 1992; completed requirements for the Doctor of Philosophy Degree at the Oklahoma State University, Oklahoma, in May, 1996.

Professional Experience: Lecturer, Department of Philosophy, Central Nationality University, Beijing, 1982-1984; Research Associate, Institute of Nationality Studies, Chinese Academy of Social Sciences, Beijing, 1986-1991; Teaching Associate, Department of Sociology, Oklahoma State University, Oklahoma, 1992-1996;

Honors and Professional Organizations: O. D. Duncan Outstanding Graduate Student Scholarship Award, 1995; American Sociological Association (1995); Sociologists for Women in Society (1995); Society for Applied Anthropology (1993).

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 10-24-94

IRB#: AS-95-021

Proposal Title: IMPACT OF CROSS-CULTURAL CONTACT ON VALUE
CHANGE: A STUDY ON CHINESE STUDENTS

Principal Investigator(s): Richard Dodder, Jian Guan

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

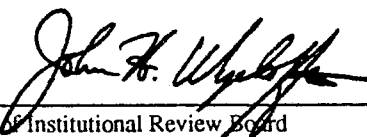
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APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A
CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD
APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR
APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval
are as follows:

Signature:



Chair of Institutional Review Board

Date: October 24, 1994