HOW DOES INDIVIDUALISM-COLLECTIVISM, FORMS OF ACTIVITIES, AND ACTIVITY PARTICIPATION PATTERNS IMPACT COLLEGE STUDENTS' LEVEL OF SATISFACTION WITH INVOLVEMENT IN SHORT-TERM INTERACTIONS AT A CAMPUS RECREATION CENTER?

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DEDICATION

In Memory of Fan-Hsiung Chen, 1944. 5.12 ~ 2007. 2. 7

This dissertation is dedicated to my beloved father, Fan-Hsiung Chen, who passed away on February 7, 2007 while I was preparing my Ph.D. qualifying exam. He taught me, my siblings, and his students to be brave of what comes to you, always give your best, and never quit. This dissertation is also dedicated to my mother, Ming-Fan Sue, for her patience and continued love and support. I am deeply indebted to my wonderful parents for their support and sacrifices for me to be away from them and pursue my master's and doctoral degree in the United States of America.

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TABLE OF CONTENTS

Chapter Page

I. INTRODUCTION 1

Statement of the Problem 6
Significance of the Study 7
Research Questions 9
Assumptions 11
Delimitations 12
Limitation 12
Definition of Terms 13

II. REVIEW OF LITERATURE 17

Culture 17
Hofstede's Cultural Dimensions 19
Power Distance 20
Uncertainty Avoidance 21
Individualism-Collectivism 22
Masculinity-Femininity 23
Long- versus Short-term 24
Individualism-Collectivism 25
Vertical and Horizontal I-C 31
Horizontal Individualism 33
Vertical Individualism 33
Horizontal Collectivism 34
Vertical Collectivism 34
Culture and the Self 37
The Self 37
Self-Construal 41
Independent Self-Construal 43
Interdependent Self-Construal 43
Coexistence of Self-Construal 44
Typologies of Self-Construal 46
Bicultural 47
Western 47
Traditional 47
Cultural-Alienated 48

Chapter Page

I-C at the Individual Level....48
Personal Orientations....51
Individual Values....53
Communication....55
Low- versus High-context Communication....58
Low-context Communication....59
High-context Communication....60
Perceptions of Communication....61
Communication Satisfaction....64
Avedon's Interaction Patterns....66
Intramural/Campus Recreation....68
Recruitment and Retention....72
Summary....74

III. METHODOLOGY....75

Selection of Sample – Sampling Method....77
Data Collection and Procedures....77
Instrumentations/Measures....78
Self-Construal Scale....79
Participation Experiences and the Level of Comfort with Short-term Interactions....82
Satisfaction of Short-term Interactions....83
Data Analysis Procedures....84

IV. FINDINGS....89

Scale Reliability....90
Sample Characteristics....90
Activity Participation Patterns....91
Forms of Activity Participation....93
Self-construal Tendencies....93
Frequency of Visiting to the CRC....97
Level of Comfort with Involvement in Short-term Interactions....97
Satisfaction with Short-term Interactions....98
Descriptive Analysis by Self-construal Tendencies....99
Independent Self-construal....104
Interdependent Self-construal....107
Level of Comfort....110
Level of Satisfaction....112
Tests of Hypotheses....115
Hypothesis 1....115

Chapter Page

Hypothesis 2....116
Hypothesis 3....117
Hypothesis 4....119
Hypothesis 5....121
Hypothesis 6....123
Hypothesis 7....124
Hypothesis 8....126
Hypothesis 9....127

V. CONCLUSION....128

Demographic Description of Sample Characteristics....129
Independent and Interdependent Self-construal....129
Typologies of Self-construal and the Influences....130
Discussion of Hypotheses....132
Hypothesis 1....132
Hypothesis 2....133
Hypothesis 3....134
Hypothesis 4....137
Hypothesis 5....138
Hypothesis 6....141
Hypothesis 7....142
Hypothesis 8....144
Hypothesis 9....147
Culturally-Alienated Group....149
Typologies of S-C and Acculturation Strategies....150
Summary....151
Implication for the Future Research....152
Implication for the Practitioner....154

REFERENCES....155

APPENDICES....177

Appendix A: Information Sheet....178
Appendix B: Questionnaire....179
I. Self-Construal Scale....179
II. Experiences in Attending the CRC....181
III. Satisfaction of the Short-term Interactions....182
IV. Demographics....182
Appendix C: Institutional Review Board Approval....183

LIST OF TABLES

Table Page

1. Data Collecting Days 77

2. Descriptive Statistics for Self-Construal Scale (Independent and Interdependent subscales), Involvement, and Satisfaction with short-term Interactions.....90

3. Summary Table for Demographic Information 92

4. Summary Table for Participants' Activity Participation Pattern at CRC 92

5. Summary Table for Participants' Forms of Activities at CRC.....93

6. Frequency Distribution of Independent-Interdependent Tendency 95

7. Independent-Interdependent Tendency with Ethnic/Racial Background 96

8. Mean and Standard Deviation of Frequency of CRC visit by S-C Groups 97

9. Mean and Standard Deviation of Level of Comfort with Short-term Interactions by S-C Groups.....98

10. Mean and Standard Deviation of Satisfaction with Short-term Interactions by S-C Groups.....99

11. Frequency Distribution of Independent Self-Construal Items by S-C Tendency Groups.....100

12. Frequency Distribution of Interdependent Self-Construal Subscale by S-C Tendency Groups.....101

13. Frequency Distribution of Level of Comfort with Involvement in Short-term Interactions by S-C Tendency Groups.....102

14. Frequency Distribution of Satisfaction with Short-term Interactions by S-C Tendency Groups.....103

Table Page

15. Means and Standard Deviation of Independent Self-Construal Items by S-C Tendency Groups 106

16. Means and Standard Deviation of Interdependent Self-Construal Items by S-C Tendency Groups 109

17. Means and Standard Deviation of the Level of Comfort with Involvement in Short-term Interactions by S-C Tendency Groups 113

18. Means and Standard Deviation of Satisfaction with Short-term Interactions by S-C Tendency Groups 114

19. Correlations among the Frequency, Overall Level of Comfort with Interactions, Level of Comfort with Greeting, Level of Comfort with Conversation, and Satisfaction in Short-term Interactions 116

20. Correlations among Independent-Interdependent Scores, Level of Comfort with Short-term Interactions, Level of Comfort with Greeting and Conversation, and Satisfaction 120

21. One-way Analysis of Variance Source Table for the S-C Tendencies on Frequency of Visiting CRC 120

22. One-way Analysis of Variance Source Table for the S-C Tendencies on the Level of Comfort with Short-term Interactions 121

23. Post-hoc Comparison of the S-C Tendencies on the Level of Comfort with Short-term Interactions 122

24. One-way Analysis of Variance Source Table for the S-C Tendencies on the Satisfaction with Short-term Interactions 124

25. Post-hoc Comparison of the S-C Tendencies on Satisfaction with Short-term Interactions 124

26. Two-way Analysis of Variance Source Table for Forms of Activity Participation and Activity Participation Patterns on Level of Comfort with Short-term Interactions 126

27. Two-way Analysis of Variance Source Table for Forms of Activity Participation and Activity Participation Patterns on Satisfaction 127

28. Correlation Between Resident Years in the United States, Level of Comfort, and Satisfaction if Participants is Not an American 128

LIST OF FIGURES

Figure Page

1. Human Mental Programming 25

2. Cultural Shaping of Psychological Reality 40

3. The Influence of Cultural Individualism-Collectivism on Communication Behavior 50

CHAPTER I

INTRODUCTION

Participation in leisure activity enhances self-worth and provides participants social opportunities for immediate enjoyment, excitement, and pleasure (Kleiber, 1999). Leisure activity can also provide chances for participants to improve mental and physical health, give opportunities for social interaction, and increase life satisfaction (Thompson, Sierpina, & Sierpina, 2000). Similarly, recreational activities and sports provide opportunities to interact with others and reflect on social aspects of the self (Larson, 1994). Further, participation in physical activities provides immense and diverse benefits and increased satisfaction (Clarkson, 1999).

According to the National Intramural Recreation Sports Association (NIRSA, 2004), 80% of over 15 million college students in the United States participate in various types of university and college recreational sport programs. University students participate in university-sponsored extracurricular activities such as sports, games, recreation, and other events outside of classroom settings. This means that extracurricular activities and campus recreation programs play an essential part of providing student experiences in college activities as well as an environment and opportunities for social interaction (Haderlie, 1987; NIRSA, 2004). Extracurricular activities refer to campus events and activities not falling within the scope of the academic curriculum, and student

participation is on voluntary basis. The out-of-classroom experiences were found to enhance students' academic achievement; for example, when the hours of involvement in intramural sports increase, students' GPA increase (Light, 1990). Participation in campus recreation is one type of extracurricular activity that focuses on sports or fitness activities in the pursuit of leisure. Campus recreation programs play an essential role in involving and integrating students into campus life.

According to Tinto's (1993) interactionalist theory of student departure and Astin's theory of involvement (1984), students tend to persist in school and graduate when they achieve greater social and academic integration and have greater involvement in college life (Berger & Braxton, 1998; Braxton, Hirschy, & McClendon, 2004; Milem & Berger, 1997). Involvement in recreational programs promotes social interaction by creating "opportunities for interaction, collaboration, and unification [which] are essential if campuses are to develop a sense of community" (Dalgarn, 2001, p. 66).

Social interaction, teamwork, and communication experiences are part of participation in many recreational activities and programs. Researchers found that involvement in campus recreation programs enhances participants' sense of well-being, skill acquisition, decision-making, leadership development, communication skills, stress management, educational outcomes, and tolerance of cultural differences (Astin, 1996; Bryant, Banta, & Bradley, 1995; Pascarella & Terenzini, 1991). Further, college students who have greater involvement in activities outside of the classroom have higher overall satisfaction with their college life than those who have less involvement (Astin, 1984).

Light found that activity involvement and satisfaction positively correlated with retention and persistence in school (1990). Campus recreation programs can contribute to

student activity opportunities to accomplish these goals for college students (Bryant et al., 1995). Campus recreational facilities and programs help students to enhance social interaction (Stokowski & Lee, 1991; Todaro, 1993), reduce academic stress (Ragheb & McKinney, 1993), improve their learning performance (Moran, 1991), and minimize social and racial barriers (Todaro, 1993). Overall, involvement in campus recreation programs positively associates with student educational success, social integration, higher level of satisfaction with the college experience, and greater levels of retention (Artinger, Clapham, Hunt, Meigs, Milord, Sampson, Forrester, 2006; Bradley, Phillipi & Bryant, 1992; Bryant & Bradley, 1993; Light, 1990; Tinto, 1993).

College life is a transition stage for any new student. Experiences such as academic pressures, financial difficulty, loneliness, and health related concerns are general stressors for college students. International students experience more stress and difficulty than domestic students when English is the student's second language (Hayes & Lin, 1994; Wilton & Constantine, 2003). Researchers state that international students experience adjustment difficulties such as homesickness, loss of family, adapting to new roles, problems with academic work, language capacity, money difficulties, lack of study skills, cultural differences, and lack of assertiveness, and experience more anxiety in the new and unfamiliar cultural environment than domestic students (Alba & Nee, 2003; Parr, Bradley & Bingi, 1992).

To participate in recreation activities is a way for college students to relieve tension and academic stress (Haines, 2000). According to Iso-Ahola (1989), "one mechanism for coping with the constant demands related to college life is through participation in recreational activities, which has been shown to play an important role in

helping students balance and improve the quality of their life" (p. 38). International students may not adapt to the new environment well if they do not have enough opportunities to interact with members of the college community outside of the classroom (Hayes & Lin, 1994). Campus recreation activities provide opportunities for contacts and social interactions with others, which assist in the adjustment process.

Researchers also found that minority (African American and Asian American) students ranked recreation programs and facilities as substantially more important/very important in their decision to attend and persist at an institution significantly higher than Caucasian students did. Minority students also reported having higher perceived benefits as a result of their participation than Caucasian students, such as self-confidence, respect for others, friendships, problem-solving skills, stress reduction, sense of belonging, and physical well-being (Bryant et al., 1995; Bradley et al., 1992). Overall, campus recreation involvement provides opportunities to assist student participants in developing a positive self-concept and promote the integration process (Bryant et al., 1995).

Researchers have found that international students tend to socialize and establish relationships with students who share same or similar backgrounds because they are unfamiliar with the host culture (e.g., American culture) (Furnham & Alibhai, 1985). Language proficiency has been found to be a significant factor in social interaction and adjustment of international students (Schram & Lauver, 1988; Yeh & Inose, 2003).

Generally, individuals experience some degree of anxiety any time when they interact or communicate with others (Turner, 1988). Researchers stated that individuals often experience intergroup anxiety before interacting with people from a different culture (Stephan & Stephan, 1985). International students in foreign cultures are

especially unsure about how to behave (i.e., uncertainty) and experience feeling of a lack of security (i.e., anxiety) in the interaction (Gudykunst & Hammer, 1988). Anxiety within an interaction involves feeling uneasy or apprehensive about what might happen (Stephan & Stephan, 1985) when people interact. The level of anxiety (i.e., communication apprehension) has been found to be related to individuals' willingness to interact and communicate with others (Barraclough, Christophel, & McCroskey, 1988).

Cultural differences have been utilized to explain the ways individuals from different cultural backgrounds behave in different situations and how to interpret others' behaviors under these situations. Theoretical cultural dimensions are created to explain similarities and differences across cultures (Hofstede, 1980). They include five dimensions of culture (Hofstede, 1980; 1983; & 2001). They are power distance, uncertainty avoidance, individualism, masculinity, and long-term orientation. Differences along these dimensions can be used to operationalize cultural variability to examine its influence on human behavior across cultures.

Individualism-collectivism (I-C) is the major dimension of cultural variability isolated by researchers across disciplines to explain similarities and differences in various communication behaviors. According to Gudykunst (1997), communication and culture are two concepts that mutually influence one another. The culture in which individuals grew up can influence their communicative behaviors, and the way they communicate with each other can change the culture they share over time (Gudykunst, 1997).

Researchers found that self-construal mediates the influence of the cultural individualism-collectivism dimension on communication behavior, such as communication styles (Gudykunst, Matsumoto, Ting-Toomey, Nishda, Kim, & Heyman,

1996; Singelis & Brown, 1995). Independent and interdependent self-construals have been identified as the cognitive correlates of the cultural variability dimension of individualism-collectivism (Gudykunst et al., 1996; Kim et al., 1996), especially in communication behaviors. Through an individual level approach, stereotypical cultural distinctions can be minimized for each individual (Kim el al., 2001).

To examine cultural differences in personal interactions across I-C tendencies, self-construal is suggested to be a better predictor of, and accounts for, more variance in communication than does cultural individualism and collectivism (Gudykunst et al., 1996; Singelis & Brown, 1995). Therefore, in this study, self-construal was applied to examine the influence of cultural individualism-collectivism on the level of anxiety and satisfaction with short-term interactions at a campus recreation center at the individual level.

Statement of the Problem

Research related to differences among people from various cultural and ethnic backgrounds in leisure settings has steadily increased in recent years (Floyd, 1998; Mannell, 2005). Researchers have identified cultural and ethnic differences in areas, such as leisure constraints (Tsai & Coleman, 1999), meanings, needs and motives (Toth & Brown, 1997; Walker, Deng, & Dieser, 2001; Yuan & McDonald, 1990), preferences (Shinew, Floyd, McGuire, & Noe, 1995), and behaviors (Floyd & Shinew, 1999). Although some cultural research exists with regard to leisure related fields, little attention has been paid to the impact of cultural differences on recreation involvement, particularly in campus recreation settings.

This study was focused on student experiences in campus recreation settings from multiple cultural standpoints. To understand cultural differences in experiencing short-term interactions existing in university campus recreation centers, the purpose of this study was to examine how individualism-collectivism, forms of activity participation, and activity participation patterns impact university students' level of comfort and satisfaction with short-term interactions at a campus recreation center.

Significance of the Study

Past research on students' university experiences have shown that recreational sports play an important role in enhancing the quality of student and campus life, improving academic performance, developing interpersonal relationships, and providing a living laboratory for developing and maintaining healthy, active lifestyles among members of the campus community (Barnett, 1990; Bloland, 1987; Matthew, 1984; Shannon, 1987; Tillman, Voltmer, Esslinger, & McCue, 1996). Further, importance and contributions of cross-cultural studies have been gaining more attention in social psychology fields (Matsumoto, 2000). However, a lack of social psychological research related to cultural differences in leisure exists (Mannell & Kleiber, 1997; Todaro, 1993; Walker, Deng, & Dieser, 2005). Further, students' experiences in campus recreation have received little attention from academics and researchers. The literature directly related to student experiences in campus recreation and cultural backgrounds is not sufficient. Therefore, this study was designed to address differences in the level of comfort and satisfaction with short-term interactions among university students from multiple cultural backgrounds participating in university-organized recreation.

Todaro (1993) addressed a lack of information about student involvement and experiences in campus recreation and urged the leisure profession to pursue research to enrich the field of study in campus recreation. Social interaction is one of the major benefits of recreational activities. Burdge and Field (1972) suggested that an understanding of "cultural similarities and differences of individuals and social groups" would advance out knowledge of human behavior in recreation settings (p. 63). No research has been conducted to discover whether cultural orientations have differential impacts upon the level of comfort and satisfaction with involvement in short-term interaction in campus recreation settings.

The significance of this research includes:

(1) Informing college and university campus recreation/leisure professionals about possible differences in participation experiences, and the level of anxiety and satisfaction with short-term interaction among students from different cultural backgrounds when participating in university-organized recreation.

(2) Providing information to campus recreation and leisure service professionals about the diversity of interaction experiences of participants from different cultural backgrounds. The deeper the understanding, the more appropriate services/programs can be offered.

(3) Enriching the body of knowledge in the campus recreation and leisure fields. The relationship between culture and extracurricular activities/recreational experiences of university students is largely unknown; therefore, this study will contribute to the knowledge base.

Research Questions

The primary research question for this study was "how do the individualism-collectivism cultural dimension, forms of activity participation (team, partnered, or individual), and activity participation patterns (alone, or with friends, acquaintances, or strangers) impact college students' levels of comfort and satisfaction with involvement in short-term interactions (greeting and involvement in two to three minute conversation) at a campus recreation center?"

The sub-questions and hypotheses for this research were as follows:

1. Was there a significant relationship between participants' levels of comfort with involvement in short-term interactions (greeting and involvement patterns in 2 to 3 minute conversation) and frequency of visits to a campus recreation center?

   Ho-1: There was no significant relationship between participants' levels of comfort with involvement in short-term interactions and frequency of visits to a campus recreation center.
2. Was there a significant relationship between the level of satisfaction with short-term interactions (greeting and involvement patterns in 2 to 3 minute conversation) and frequency of visits to a campus recreation center?

   Ho-2: There was no significant relationship between the level of satisfaction with short-term interaction and frequency of visit to a campus recreation center.
3. Was there a significant relationship between participants' independent-interdependent tendencies scores, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center?

Ho-3: There was no significant relationship between participants' independent-interdependent tendencies, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center.

4. Was there a significant difference among participants with different types of S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on frequency of visit to a campus recreation center?

   Ho-4: There was no significant difference among participants with different types of S-C tendencies on frequency of visit to a campus recreation center.

5. Was there a significant difference among participants with different types of S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on the level of comfort with short-term interactions at a campus recreation center?

   Ho-5: There was no significant difference among participants with different types of S-C tendencies on the level of comfort with short-term interactions at a campus recreation center.

6. Was there a significant difference among participants with different types of S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on the level of satisfaction in short-term interaction at a campus recreation center?

   Ho-6: There was no significant difference among participants with different types of S-C tendencies on the level of satisfaction in short-term interaction at a campus recreation center.

7. Did the level of comfort with involvement in short-term interaction at a campus recreation center significantly differ between different forms of activity participation (team, partnered, individuals) and activity participation patterns

(alone, with acquaintance, with friend, with family)?

Ho-7: The level of comfort with involvement in short-term interactions at a campus recreation center did not significantly differ between different forms of activity participation and activity participation patterns.

8. Did the level of satisfaction with involvement in short-term interactions at a campus recreation center significantly differ between forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family)?

   Ho-8: The level of satisfaction with involvement in short-term interactions at a campus recreation center did not significantly differ between forms of activity participation and activity participation patterns.

9. Was there a significant relationship between the residency years of international students in the United States, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center?

   Ho-9: There was no significant relationship between the residency years of international students in the United States, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center.

Assumptions

Assumptions were acknowledged with respect to this research study, and included the following:

1. The sum of each item from the individualism-collectivism cultural dimension (Self-Construal Scales) was calculated. It is assumed that Likert scale data may be

treated as interval data.

2. It was assumed that each participant engaged in some form of greeting and short-term interaction at a campus recreation center.
3. The sample used for this study was representative of their cultural backgrounds.
4. In completing the questionnaire, participants took the time to read and understand what was asked before offering their honest opinions.

Delimitations

The investigator selected boundaries for the design of this study, and identified delimitations to the generalizability and utility of findings:

1. The proposed study was at a large, public university in the Southern Plains, and generalizations to students at other types of institutions may be limited.
2. This study was delimited to the quantitative analysis of short-term interaction (greeting and involvement in two to three minutes conversation) among participants.
3. This study explored a limited range of interactions (e.g., greeting, short-term conversation) at a university recreation center.

Limitation

A limitation that may affect the results of this study is as follow:

1. Non-response bias is always a concern in survey research. The results of this study are limited to those who accepted the invitation to participate in the study.

Definition of Terms

For the purposes of this study, terms are defined as follows:

Activity Participation Pattern

Gudykunst and Shapiro (1996) compared interaction in three types of intercultural relationships –those between friends, between acquaintances, and between strangers. The result illustrated that the quality of communication was highest between friends, followed by between acquaintances, and was lowest between strangers. In this study, activity participation pattern was defined as university students participating in activity at a campus recreation center with friends, with acquaintances, or with strangers.

Culture

Hofstede defined culture as "software of the mind" (1991, p. 4). According to his concept, culture is a type of programming learned from the social environment. Culture refers to "a collective programming of the mind, which distinguishes the members of one group or category of people from another" (Hofstede, 1980. p. 13). According to Hofstede (1991), national culture is the dominant mental program that predominates in a country.

Cultural dimensions

Hofstede (1980) identified four cultural dimensions. They are Power Distance, Uncertainty Avoidance, Individualism-Collectivism, and Masculinity/Femininity. A fifth dimension was added, which is Long- versus Short- term dimension (Hofstede, 2001).

Collectivism

Collectivism pertains to "societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetimes continue

to protect them in exchange for unquestioning loyalty" (Hofstede, 1991, p. 51). Collectivism is associated with "a sense of duty toward one's group, interdependence with others, a desire for social harmony, and conformity with group norms" (Triandis, 1989). People from collectivist cultures tend to place group and relationship goals first, and engage in behaviors that would show respect to, and likely please, important others (Triandis, 1995).

High-context communication

A high-context (HC) communication or message is that which "most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message" (Hall, 1976, p. 79). People from collectivistic societies predominately use HC communication (Gudkunst, 1998; Gudykunst & Ting-Toomey, 1998).

Independent Self-Construal

Independent self-construal is defined as "a 'bounded, unitary, stable' self that is separated from the social context. The constellation of elements composting an independent self-construal includes an emphasis on (a) internal abilities, thoughts, and feelings, (b) being unique and expressing the self, (c) realizing internal attributes and promoting one's own goals, and (d) being direct in communication" (Singelis, 1994, p. 581).

Individualism

Individualism refers to "societies in which ties between individuals are loose, everyone is expected to look after himself or herself and his or her immediate family" (Hofstede, 1991, p. 51). Individualism is associated with "independence, autonomy, self-

reliance, uniqueness, achievement orientation, and competition" (Triandis, 1989). People from individualist cultures are likely to focus on personal rather than group goals (Triandis, 1995).

In-groups

In-groups are more important in collectivistic cultures than in individualistic cultures. According to Triandis (1988), in-groups are "groups of people about whose welfare one is concerned, with whom one is willing to cooperate without demanding equitable returns, and separation from whom leads to discomfort or even pain" (p. 75), such as family, tribe, coworkers, and nation (Triandis, Chen, & Chan, 1998).

Interdependent Self-Construal

Interdependent self-construal is defined as "a 'flexible, variable' self that emphasized (a) external, public features such as statuses, roles, and relationships, (b) belonging and fitting in, (c) occupying one's proper place and engaging in appropriate action, and (d) being indirect in communication and "reading others' minds" (Singelis, 1994, p. 581).

Low-context communication

A low-context (LC) communication or message refers to that which is, "the mass of information is vested in the explicit code" (Hall, 1976; p. 70). People from individualistic cultures predominately use LC communication (Gudkunst, 1998; Gudykunst & Ting-Toomey, 1998).

Recreational Sports

Recreational sports are sport activities in which individuals engage for the pursuit of leisure or fitness. These sports include individual pursuits such as running and weight

lifting, as well as participation in recreational sport classes such as aerobics. Recreational sport programs are often labeled as campus recreation programs (Weese, 1997). According to Byl (2002), the term “campus recreation” and “intramurals” are used interchangeably at many institutions. Therefore, in this study, the two terms “campus recreation” and “intramurals” are equivalent.

Self-construal

Self-construal is conceptualized as “a constellation of thoughts, feelings, and actions concerning one’s relationship to others, and the self as distinct from others” (Singelis, 1994, p. 581). Self-construals influence and determine the very nature of individual experience, including cognition, emotion, and motivation. Self-construal is corresponds to the different aspects of self-concept in individualism and collectivism (Markus & Kitayama, 1991; Singelis, 1994; Triandis, 1995). Eastern cultures have distinct conceptions of individuality that insist on the fundamental relatedness of individuals to each other. Western cultures neither assume nor value such an overt connectedness among individuals. In contrast, individuals seek to maintain their independence from others by attending to the self and by discovering and expressing their unique inner attributes (Markus & Kitayama, 1991).

Short-term interaction

In this study, short-term interaction was defined as greeting (e.g. “hello”, head nod) and a two to three minute conversation between people at a campus recreation center.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to examine how individualism-collectivism, forms of activity participation, and activity participation patterns impact college students' levels of comfort and satisfaction with short-term interactions at a campus recreation center. The first section of this chapter provides a review of selected literature to provide a broad overview of culture. Further, it concentrates on individualism-collectivism and the perspectives of communication and interaction, which was a construct of this study. The second part of this review examines selected literature on recreation and elements of campus recreation.

Culture

In the early 1950s, Kroeber and Kluckhohn (1952) reviewed more than 150 definitions of culture. They synthesized all the aspects or types of definitions into a single, complete, and useful definition. They formulated the concept of culture as follows:

> *Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially*

Their attached value; culture systems may, on the one hand, be considered as products of action, on the other as conditioning elements of further action. (p. 181)

However, anthropologists have continued to differ on the key concepts embedded in "culture". For example, Goodenough (1964) identified culture as a mental framework, involving "models for perceiving, relating, and otherwise interpreting" things, people, behaviors, or emotions (p. 167). Keesing (1974) described culture as a system of behavior patterns (e.g., technologies, economic and social patterns, religious beliefs) learned in one's group). More recently, Triandis (1990) distinguished culture between objective culture, constituted by objects that can be touched or seen (e.g., roads, clothes, food, buildings, and tools), and subjective culture, constituted by subjective responses to what is human-made (e.g., myths, norms, roles, values, beliefs, and attitudes).

Culture influences individuals' feelings, beliefs, attitudes, responses to living experiences, and interactions with others. Culture can be specified in norms, which guide desirable behaviors for members of a culture; in roles, which individuals present in the social structure; and in values. Culture also constructs the way that people interpret the world and themselves (Markus & Kitayama, 1991; Schwartz, 1997; Triandis, 1995; Yum, 2004). It has a direct influence on behavior through creating and maintaining rules, which is critical to the development and continuance of personal relationships (Coon & Kemmelmeier; 2001; Triandis, 2004). In addition, culture indirectly influences behavior through shaping personality dispositions (Markus & Kitayama, 1991; Triandis, 1994). Culture is not a static entity, but it ever-evolving; what we commonly know as "the generation gap" is a cultural difference as it refers to different ways of life and being for

people who are raised in different periods of time. Language, time, and place are all essential in determining the differences between one culture and another (Triandis, 1994).

As mentioned earlier, Hofstede defined culture as "collective programming of the mind" (1980, p. 13) and as "software of the mind" (1991, p. 4). Culture, according to Hofstede (1983), is a collective programming that distinguishes the members of one group or category of people from another.

> *Through our experiences we become "mentally programmed" to interpret new experiences in a certain way. It is that part of our conditioning that we share with other members of our nation, region, or group…. Such cultural programs are difficult to change. (Hofstede, 1983, p. 76)*

Hofstede indicated that culture is learned and derived from the social environment, rather than inherited (Hofstede, 1991). In Hofstede's description, "learned" means that which is modified by the influence of culture (collective programming) and unique personal experiences. Hofstede (1983) stated that the cultural dimension model broadly characterized national culture by the "average pattern of beliefs and values" (p. 78).

Hofstede's Cultural Dimensions

Hofstede (1980, 1991) examined responses on a series of employee attitude surveys from 117,000 IBM employees across 67 countries over a six-year period (1967-1973) and he originated four cultural variability dimensions in his study. The results of his study indicated that the systematic differences among employees' responses were based on the nationality of the employees, rather than by education, gender, age, job

classification, or other demographic variable (Hofstede, 1980; 1991; Hofstede & McCrae, 2004).

Based on the results, Hofstede characterized four cultural dimensions of national cultures: Power Distance, Individualism-Collectivism, Masculinity-Femininity, and Uncertainty-Avoidance (1991). More recently, Hofstede and his colleagues identified a fifth dimension (Long- versus Short- term dimension). This fifth dimension was derived from a study of students in 23 countries around the world, using a Chinese researchers' values inventory questionnaire (Chinese Culture Connection, 1987; Hofstede, 2001). Hofstede's four cultural dimensions are related to business organizational values in different cultures. The four cultural dimensions should be considered as a first empirical attempt to compare cultures on a group level (Ting-Toomey, 1999). The five dimensions are described as follows:

Power Distance

According to Hofstede (1991), power distance is a measure of a society's tolerance and preference for inequality (more or less) and hierarchical power between a superior and a subordinate. Hofstede (1991) defined power distance as "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (p. 28). Hofstede (1980) suggested that cultural differences exist in the level of power inequality that people accept for subordinate-authority relations.

Human inequality is inherent to every society, however, the way people deal with it is different from country to country. Individuals in small power distance cultures, such as Australia, Israel, and Denmark, have tendencies to value equal power distributions,

equal rights, equal relations, and equitable rewards and punishments based on performance. On the contrary, people in large power distance societies, such as Malaysia, Mexico, and Arab countries, tend to accept unequal power distributions, hierarchical rights, asymmetric role relations, and rewards and punishments based on age, rank, status, titles, and seniority (Hofstede, 1991). Hofstede (2001) stated that power inequality is "characteristic of a culture which defines the extent to which the less powerful persons in a society accept inequality in the power and consider it as normal" (p. 98).

Hofstede (1991) demonstrated that the geographic latitude of a country (e.g., higher latitudes being connected with a smaller power distance), population size (e.g., larger size being associated with a larger power distance), and wealth (e.g., richer countries being linked to a small power distance) have impact on the power distance dimension. Generally speaking, the concepts of power are more likely to refer to domination in low power distance societies negatively, compared to the concept of power in high power distance societies, which is associated with kindness, nurturance, and supportiveness. Individuals in small power distance cultures tend to consider equality of personal rights as representing an ideal to strive toward in a system; those from large power distance cultures respect power hierarchy in any system as a fundamental way of life (Spencer-Oatey, 1997).

Uncertainty Avoidance

Uncertainty avoidance is related to a society's tolerance for uncertainty and ambiguity. This dimension indicates to what extent a culture's members feel either threatened by uncertain situations (e.g., novel, unknown, surprising, or unusual circumstances) and the extent to which the members try to avoid these situations

(Hofstede, 1991). Individuals with a stronger uncertainty avoidance tendency experience greater feelings of threat and tend to avoid facing uncertain, novel situations.

Weak uncertainty avoidance cultures (also called uncertainty-accepting cultures) encourage risk taking, whereas strong uncertainty avoidance cultures (also known as uncertainty-avoiding cultures) prefer clear procedures and guidelines in directing members' behaviors (Hofstede, 2001). For instance, family roles in strong uncertainty avoidance family situations are clearly established and family rules are expected to be followed closely, whereas family roles and behavioral expectations in weak avoidance family situations are actively negotiated (Hofstede, 1991; 2001; Hofstede & McCrae, 2004; Ting-Toomey, 1999). Singapore, Jamaica, Denmark, Sweden, Hong Kong, and the United States are examples of countries with a weak uncertainty avoidance orientation; Greece, Portugal, Guatemala, and Japan are examples of countries with strong uncertainty avoidance (Hofstede, 1991). Hofstede (1991) explained that historical/political change contexts and national wealth are two primary factors that influence the development of an uncertainty avoidance orientation.

Individualism-Collectivism

The individualism-collectivism dimension is concerned with the relationship of the individual to the collective. Individualism refers to "societies in which ties between individuals are loose, everyone is expected to look after himself or herself and his or her immediate family" (Hofstede, 1991, p. 51). Collectivism pertains to "societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetimes continue to protect them in exchange for unquestioning loyalty" (Hofstede, 1991, p. 51). In general, individualism emphasizes the importance of

individual identity over group identity, individual goals over group goals, and individual needs over group needs. Individualism is associated with independence, personal autonomy, self-efficiency, individual responsibilities, and uniqueness (Triandis, 1995).

In contrast, collectivism emphasizes the importance of the "we" identity over the "I" identity, group goals over individuals goals, and in-group needs over individual desires. Collectivism is connected with interdependence, in-group harmony, a sense of duty toward the group, and conformity with group norms (Triandis, 1995). Hofstede (1991) reveals that national wealth, population growth, and historical roots impact the development of people's individualistic and collectivistic values. For instance, wealthy, urbanized, and industrialized societies are more individualistic oriented when compared to poorer, rural, and traditional societies, which are more collectivistic oriented.

Masculinity-Femininity

The masculinity-femininity dimension reflects the social roles associated with genders. Masculinity, according to Hofstede (1991), refers to "societies in which social gender roles are clearly distinct (namely, men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender, and concerned with the quality of life)" (p. 82). Femininity pertains to "societies in which social gender roles overlap (i.e., both men and women are supposed to be modest, tender, and concerned with the quality of life)" (Hofstede, 1991, p. 82). In masculine countries, such as Japan, Australia, Italy, and Mexico, social gender roles are clearly distinct. Men are supposed to be strong, assertive, tough, and focused on material success; whereas women are expected to be more modest, tender, and concerned with the quality of life. In feminine countries, such as Sweden, Norway, and Denmark, social gender roles are

somewhat overlapping, so that the differentiation between male and female is less compared to those in masculine countries. In Hofstede's studies the United States ranks 15th on the masculinity continuum, out of 50 countries (Hofstede, 1991; 2001).

Long-versus short-term

The fifth dimension of Hofstede's cultural dimensions model, as known as "Confucian dynamism", is independent of the previous four. It is derived from a value inventory indicating that members of the East Asian countries with a strong link to Confucian philosophy act differently from those in western cultures (Hofstede, 1991; 2001). The fifth dimension was derived from the answers of students from 23 countries completing the Chinese Value Survey. The Chinese Culture Connection group (1987) explained some of the distinctive behavioral patterns in East Asian cultures, such as China, Hong Kong, Taiwan, Japan, and South Korea. The results reveal the primary values in these East Asian cultures include a long-term orientation, perseverance, ordering relationships by status, being thrift centered, having a sense of shame, and emphasizing collective face-saving (Hofstede, 2001). The values associated with a short-term orientation include personal steadiness and stability, being spending-centered, and emphasizing individual face-saving. Pakistan, Nigeria, the Philippines, and Canada are example countries with a short-term orientation (Hofstede, 2001).

Culture is depicted as mental programming where personality and human nature is integrated with culture to achieve a unique individual (Hofstede, 1997). According to Hofstede (1997), culture is separated from human nature and personality; however, the boundaries are indistinct between them. Personality, in Figure 1, is presented at the top extreme, which is unique to an individual. Human nature is what human beings have in

common (Maslow, 1954), such as the ability to feel fear, anger, love, joy, and hatred. Culture directly and indirectly impacts and modifies these feelings and human behaviors (Hofstede, 1997). Culture guides its members to behave in different situations and to interpret others' behaviors under these situations (Gudykunst, 1998). Hofstede's cultural dimensions model provides a framework that describes five sorts of value perspectives and differences between cultures. Differences along these five dimensions can be used to operationalize cultural variability to examine influences across disciplines.

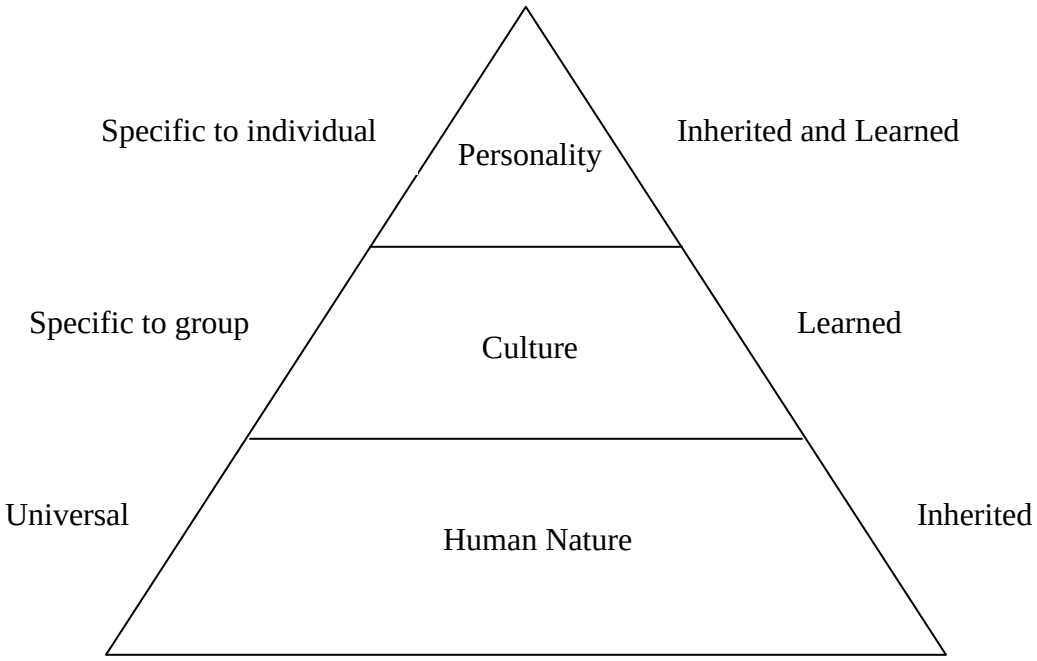

Figure 1. Human Mental Programming (Hofstede, 1997)

Individualism – Collectivism (I-C)

According to Triandis (1995), collectivism refers to "a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives," and individualism refers to "a social pattern that consists of loosely linked individuals who

view themselves as independent of the collectives" (p.2). The Individualism-Collectivism (I-C) dimension provides a powerful way to study cultural variability and it has received the most attention in cross-cultural psychology over the last 20 years (Kim, Triandis, Kagitcibasi, Choi, & Yoon, 1994). Triandis (2001) contended that I-C is "arguably the most important dimension of psychological culture to have emerged in the literature," and has been used by many "to understand, explain, and predict cultural similarities and differences across a wide variety of human behavior" (p.35).

People from collective cultures have different perceptions and behaviors compared to people from individualist cultures (Early & Gibson, 1998; Green & Paez, 2005; Hofstede, 1991; Ramamoorthy & Flood, 2004; Triandis, 1995; & 2004). The self concept of people in individualist cultures is considered to be stable, and the social environment is considered as changeable. Therefore, people in individualist cultures tend to shape the social environment to fit their personality. In contrast, people in collectivist cultures are interdependent within groups, which provide a stable social environment. Thus, people in collectivist societies tend to have flexible personalities and adjust to the social environment (Triandis, 2001).

Individualism has been associated with most northern and western regions of Europe, North America (especially the United States), and Australia. Cultures in Asia, Africa, South America, and the Pacific Island region have been identified as collectivist (Cai & Fink, 2002; Markus & Kitayama, 1991; Maznevski et al., 2002; Singelis, 1994). These are the same regions where independent and interdependent self-construals are prototypical views of self, respectively (Markus & Kitayama, 1991; Singelis, 1994). Individuals from collectivist cultures are influenced by group-oriented cultural values and

tend to have an interdependent construal of self. Persons from an individualistic culture are more likely to be influenced by individual-focused cultural values and they tend to have an independent self-construal (Markus & Kitayama, 1991; Singelis, 1994).

Individualism is associated with "independence, autonomy, self-reliance, uniqueness, achievement orientation, and competition" (Triandis, 1989, p. 509). Collectivism refers to "a sense of duty toward one's groups, interdependence with others, a desire for social harmony, and conformity with group norms" (Triandis, 1989, p.510). People from individualistic cultures focus on individuals' initiative and achievement, while those from collectivistic societies emphasize belonging to in-groups (Hofstede, 1980; Ramamoorthy & Flood, 2004). People in individualist cultures are more likely to focus on personal needs and to engage in behaviors that satisfy their own needs compared to people from collectivist societies. Individualists give priority to personal goals over in-group goals. In contrast, collectivistic individuals tend to emphasize group goals and relationship goals (Early & Gibson, 1998; Triandis, 2001). People in collectivist cultures are inclined to solve problems by engaging in behavior that would show respect to, and likely please, important others such as parents, teachers, and superordinates (Abraham, 1997; Schwartz, 1990; Triandis, 1989; 1995). According to Triandis (1990), behavior of collectivist cultures is mainly regulated by in-group norms and values, compared to individual behavior of individualist cultures, which is regulated by personal likes/dislikes and cost-benefits analyses.

Respondents in Triandis, Brislin, and Hui's (1988) study were asked to give 20 descriptions of themselves by completing 20 sentences that start with "I am …." The results revealed that people from individualistic cultures used only 15% group-related

attributes to define themselves, whereas those from collectivistic cultures used 35-45% group-related attributes (e.g., I am the third daughter of my family) to describe their sense of selfhood. In terms of specific value emphasis, the top individualist values from the study were freedom, honesty, social recognition, comfort, hedonism, and personal equity. The top collectivist values were harmony, face-saving, filial piety (respect and conformity to parents' wishes), equality in the distribution of rewards among peers (for the sake of group harmony), and fulfillment of other's needs (Triandis et al., 1988).

People from individualistic societies perceive themselves as unique independent entities separated from others, whereas those from collectivistic cultures consider themselves as individuals who are inherently interconnected with others (Matsumoto et al., 1997). Individualists "put much emphasis on values and interests that serve the self by making the self feel good, be distinguished and be independent," and are more likely to use "cost-benefit analyses and have emotional detachment from their in-group" (Lee, 1993, p. 261). Collectivists "stress values and interests that serve the in-group by subordinating personal goals for the sake of preserving in-group integrity, interdependence of members, and harmonious relationships, and the self is usually defined in in-group terms" (p. 261). In addition, individualists "tend to be universalistic and apply the same value standards to all." In contrast, collectivists are more "particularistic and apply different value standards to members of their in-groups and outgroups" (Gudykunst, Yoon, & Nishida, 1987, p. 296).

In Triandis et al.'s (1993) research, people from Indonesia indicated that they feel anxious when they are not with their in-groups. In-groups are characterized by similarities among the members, and individuals have a sense of "common fate" with

members of their in-group. For example, those who live in the same community may have a sense of common fate linked to the ecology and climate of that locale. According to Triandis (1995), in-groups are "groups of people about whose welfare a person is concerned, with whom that person is willing to cooperate without demanding equitable returns, and separation from whom leads to anxiety" (p. 9). In-groups are groups seen to be important by collectivistic individuals compared to individualists (Gudykunst & Lee, 2003). Gudykunst et al. (1987) argued that people from individualistic cultures have many specific in-groups, but these in-groups exert little influence on the individuals; collectivistic individuals have only a few in-groups that influence behaviors across situations. Triandis et al. (1990) discovered that individualists tend to consider their in-groups as more heterogeneous than their out-groups. On the other hand, collectivists are more likely see their in-groups as more homogenous than their out-groups.

In individualistic cultures, "people are supposed to look after themselves and their immediate family only", while in collectivistic cultures, "people belong to in-groups or collectivities which are supposed to look after them in exchange for loyalty" (Hofstede & Bond, 1984, p. 419). Collectivists are especially concerned with relationships, whereas individualists behave primarily on the basis of their attitudes rather than the norms of the in-groups (Triandis, 2001). For example, lying is considered as an acceptable behavior in collectivist culture, if it helps the in-group or saves face (Triandis, 2001). There are traditional ways of lying that are understood as correct behavior. Face is very important in collectivist cultures.

In conflict situations, researchers found that people in collectivist cultures are primarily concerned with maintaining their relationship with others, whereas those from

individualist societies are primarily concerned with achieving justice (Ohbuchi, Fukushima, & Tedeschi, 1999). Research also found that individuals in collectivist societies prefer methods of conflict resolution that do not destroy relationships, such as mediation; whereas those in individualist cultures are willing to go to court to settle disputes (Leung, 1997).

Chen, Meindl, and Hunt (1997) identified two themes of relationships that can be deduced from the various definitions of I-C: "self-collectivity" ("how people relate to collectivities of which they are members") and "self-other" ("how they relate to each other as individuals"). For example, Hofstede focused the study of I-C on the relation (relative dependence or independence) of personal work goals to the collectives (e.g., the organization); Jonsen (1983) argued that every human being feels the tug between the principle of self-interest and that of altruism (care and concern for others) (in Chen et al., 1997). Researchers conceptualize I-C as associating primarily with the self-collectivity relationship, as primarily referring to the self-other relationship, and as connecting to both. However, the self-collectivity relationship idea is emphasized more often than the concept of self-other relationship.

Triandis (1995) summarized four attributes illustrating the different characteristics between individualists and collectivists. First, people from individualist cultures focus on independence and personal aspects of self whereas people from collectivist cultures focus on interdependence among members of a group. Second, individualists are concerned with personal goals compared to collectivists, who are concerned with group goals. Third, social interactions and behaviors of individualists are conducted from the perspective of personal rights, preferences, and individual attitudes and contracts while

social interactions of collectivists are governed by social norms, obligations, and duties to the group. And fourth, individualists treat relationships as rational exchanges whereas collectivists stress the communality of relationships, even when this may become a personal disadvantage to an individual (Hwang & Francesco, 2006; Triandis, 1995). The first three I-C attributes of Triandis' (1995) summary deal with the self-collectivity relationship in terms of self-identity, goal priorities, and behavioral norms. The fourth attribute, which values relationships and harmony, refers primarily to interpersonal in-group relations.

Vertical and Horizontal I-C

For sometime Hofstede's I-C dimension has been considered to represent opposite poles of a cultural continuum (Triandis, 2004). At one end of the continuum is western individualist thought – with a clear distinction between the individual as a separate entity representing him/herself, and the other end is collectivist thought – with unclear distinctions between an individual and a group (Bochner & Hesketh, 1994; Triandis, 2004).

Now, however, researchers suggested that individualism and collectivism are polythetic constructs which can be spit into several facets (Singelis et al., 1995; Triandis, 1995). Triandis (1995) contended that multiple types of individualism and collectivism exist when he discussed the differences between American individualism (emphasizing competition and status) and Swedish individualism (emphasizing equality), and the collectivisms between the Israeli kibbutz and the Korean culture.

It has been noted that differences exist within individualistic or collectivistic cultures (Singelis et al., 1995; Triandis, 1995). Triandis and Gelfand (1998) identified

horizontal and vertical constructs of individualism and collectivism. They indicated that some cultures emphasize equality (such as Australians and Swedes), and others emphasize hierarchy (such as India, and highly competitive Americans who want to be "the best"). They argue that the most important attributes distinguishing among different types of individualism and collectivism are the relative emphases on horizontal and vertical social relationships. The vertical-horizontal dimension emphasizes how an individual identifies and accepts himself or herself as different/unequal or same/equal with other members of the in-group. Individuals who are high on the vertical dimension tend to focus on hierarchy and accept social order and inequality among individuals. This is compared to individuals who are high on the horizontal dimension and incline to emphasize equality and believe that everyone should have equal rights and status.

Acceptance of hierarchy is the basis of differentiation between the vertical and horizontal patterns. Horizontal patterns assume that one individual is more or less like every other individual. In contrast, vertical patterns consist of hierarchies in which one self is different from other selves (Triandis, 2001; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998). In other words, the horizontal concept emphasizes equality between group members and the vertical aspect emphasizes hierarchy and competition.

The ways in which these relative emphases combine the vertical-horizontal and individualism-collectivism dimensions result in four possible unique cultural patterns, which are horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC), and vertical collectivism (VC). VI refers to independence and perceives the self as different from others, an individual with HI is independent and perceives the self to be the same as others; VC is interdependent and perceives the self to

be different from others; and HC is interdependent and perceives the self to be the same as others (Singelis et al. 1995; Triandis & Gelfand, 1998).

Horizontal Individualism (HI)

Individuals with a horizontal individualism (HI) orientation view self as autonomous and they expect equality in status to others. In other words, horizontal individualists do not want to be unique and distinct from others. They want to "do their own thing", and do not compare themselves with others. HI emphasizes self-reliance; at the same times, people from this type of culture do not want to be distinguished from others (Robert, Probst, Martocchio, Drasgow, & Lawler, 2000; Triandis, 2004; Triandis et al., 1998; Triandis & Gelfand, 1998; Triandis & Singelis, 1998). HI mostly exists in democratic socialist countries that highly value both equality and freedom, such as Norway, Sweden, and Australia (Abraham, 1997; Triandis, 2004; Triandis et al., 1998; Triandis & Gelfand, 1998).

Vertical Individualism (VI)

Individuals from vertical individualist cultures see the self as autonomous, and they accept inequality in status to others. Vertical individualists are especially concerned with comparisons with others. They want to be "the best", win in competitions, become distinguished, and acquire status. Doing well in competition is an important concept of this pattern (Robert et al., 2000; Triandis, 2004; Triandis et al., 1998; Triandis & Gelfand, 1998; Triandis & Singelis, 1998). The most important concept of VI is competition with self-reliance. VI is dominant in western democracies that value freedom, but not equality, such as France and the middle/upper class in the United States (Abraham, 1997; Triandis, 2004; Triandis et al., 1998; Triandis & Gelfand, 1998).

Horizontal Collectivism (H-C)

Horizontal collectivists view the self as a portion of the collective, and see all members of the collective as the same. Individuals in horizontal collectivist cultures merge with their in-groups such as family, tribe, coworkers, and nation; they do not feel subordinate to other in-group members (Robert et al., 2000; Triandis, 2004; Triandis et al., 1998; Triandis & Gelfand, 1998; Triandis & Singelis, 1998). In HC, people consider themselves as being equal and similar to others. Societies with horizontal collectivist tendencies value equality, but not freedom. The Israeli kibbutz has been portrayed as a classic example of horizontal collectivism (Triandis, 2001; & 2004; Triandis et al., 1998; Triandis & Gelfand, 1998).

Vertical Collectivism (V-C)

Individuals from vertical collectivist cultures view the self as an aspect of their group and accept inequalities within the collective. The self-concept of vertical collectivists is interdependent with others of the in-group, and the members of the in-group differ from one another. In vertical collectivism, inequality is accepted and expected, especially with regard to social status (Robert et al., 2000; Triandis, 2004; Triandis et al., 1998; Triandis & Gelfand, 1998; Triandis & Singelis, 1998). Vertical collectivists emphasize the integrity of the in-group, support competitions between their in-group with out-groups, and are willing to sacrifice their personal goals for the sake of in-group goals. VC societies value neither equality nor freedom. Traditional communal societies with strong leaders, (e.g., China) are examples of VC cultures (Triandis, 2001; & 2004; Triandis et al., 1998; Triandis & Gelfand, 1998).

Singelis et al. (1995) developed an attitudinal measure of the vertical-horizontal I-C and tested the constructs on undergrauduates in the continental United States and Hawaii; they confirmed the four-factor model of the vertical-horizontal I-C. The constructs were further examined by Triandis et al. (1998) and Triandis and Gelfand (1998). Triandis et al. (1998) developed an alternative measure of the constructs using participants from the United States and Hong Kong. The scenario-based alternative measure indicated convergence with Singelis et al.'s attitudinal measure of VI, HI, VC, and HC.

Triandis and Gelfand (1998) examined the validity of the vertical-horizontal I-C construct in their three studies. The first study reported the expected pattern of factor loadings on VI, HI, VC, and HC using a sample of South Korean undergraduates by using a reduced set of 16 attitudinal items, from a modified version of the Singelis et al. (1995) 32-item measure. The second and third studies were conducted with undergraduate students in the United States. In the second study Triandis and Gelfand (1998) found evidence of convergent and discriminate validity for the scenario and attitudinal measures. The third study examined the associations of VI, HI, VC and HC with components of individualism (Competition, Emotional Distance, Hedonism, and Self-Reliance) and collectivism (Family Integrity, Interdependence, and Sociability).

Oishi et al. (1998) investigated the relationships between VI, HI, VC, and HC using the attitudinal measure developed by Singelis et al., 1995 and Schwart's (1992, 1994), which measured ten value types at the individual level in the United States. They found that VI was moderately positively related to power and achievement, HI to self-

direction, VC to conformity and security, and HC to benevolence. They concluded that the findings provided support for the relationships hypothesized by Triandis (1996).

Soh and Leong (2002) examined the construct validity of vertical-horizontal I-C at the individual level across students from the United States and Singapore. The study showed that the U.S. students were more HI and the Singapore students were more VC. However, the Triandis et al. (1998) 16-item short version of attitudinal measure was found invariant. Although the study supported that cross-cultural validity of the structure and the construct of individualism-collectivism dimension, the operationalization of the vertical-horizontal dimension by the measure was questioned (Soh & Leong, 2002). In summary, research findings showed that measure of VI, HI, VC, and HC demonstrated structural differentiation within the United States and across Hong Kong, Singapore and South Korea.

Individualism-collectivism (I-C) has been the focus of many cross-cultural studies in a wide range of disciplines such as economic development, moral views, and psychology (Triandis, 1990). Researchers have found that both individualism and collectivism exist in all cultures (Kapoor et al., 2003; Gudykunst et al., 1996), and individualism and collectivism are subdivided into horizontal and vertical types (Singelis et al., 1995; Triandis, 1995).

Modernization trends and the socio-economic transformation lead to the change of life standards and traditional concepts of values all over the world. An increasing individualist orientation in collectivist societies is a trend in younger generations (Hofstede, 2001). Adaptation to the demands of modern life permanently changes the social standard in many cultures. Each culture, however, retains its basic values as the

necessary condition for cultural continuity. The more complex the culture, the more individualist the culture tends to be (Triandis, 2001). According to Triandis, cultures differ in complexity. Complex cultures have are more choices and lifestyles expressed in them. For example, an urban culture is considered more complex than a rural environment. People in individualist cultures desire to have more choices and are motivated more when they have many choices than those in collectivist cultures (Triandis, 2001).

Culture and the Self

Cultural norms, beliefs, and values are all forces that shape a person's concept of self. The nature of the self varies across cultures (Markus & Kitayama, 1991; Singelis, 1994; Triandis, 1989). The relation of the self to the collective provides the basis for most cultural classification schemes/continua. Some cultures (e.g., Western cultures) fall at one end of the continuum and people in these cultures hold and promote a conception of the self as independent from the collective. On the contrary, individuals in other cultures (e.g., Eastern cultures) hold and promote a conception of the self as interdependent with the collective (Markus & Kitayama, 1994).

The Self

The central concept of self is defined as an individual's perceptions, evaluations, and behaviors (Markus & Kitayama, 1991). The concept of self was originally constructed within a European-American cultural framework, representing people to be "independent, bounded, autonomous entities" (Markus & Kitayama, 1991, p. 568). This understanding of the self is based on individualism, personal rights, and the autonomy of the individual from social groups. In this scheme, the healthy self is characterized as

being able to maintain its integrity across diverse social environments and to successfully parry challenges and attacks from others (Cross, Bacon, & Morris, 2000; Markus & Kitayama, 1994). Triandis (1990) further defined the self within different cultural tendencies. In his perspective, the self is defined as a separate and distinct entity in individualist cultures, whereas as it is an addition of the in-group in collectivist cultures (Triandis, 1990). Markus and Kitayama (1994) used a psychological process to describe how cultural values shape individual behaviors and actions. The stages of this psychological process are depicted in Figure 2 (on page 40; Markus & Kitayama, 1994).

The cultural shaping of the psychological process (Figure 2) illustrates how the reality of independence is created and maintained in selves and in theories of selves. According to Marcus and Kitayama (1994), a cultural group's tendencies of self-understanding is related to a set of macro level phenomena (e.g., cultural views of personhood and their supporting collective practices), and to a set of micro level phenomena, such as individual lives and their constituent cognitive, emotional, and motivational processes.

(a) Collective reality

Collective reality refers to cultural values that are the unique ecological, historical, economic, and socio-political factors of each culture. Examples of collective reality are the Bill of Rights of the United States, or Confucianism of the Chinese culture. Such core cultural ideals are rooted in society and form the basis of economic, political, and social institutions.

(b) Socio-psychological products and processes – transmitting the core ideas

By transforming the collective reality into a largely personal or psychological reality, cultural ideals and moral imperatives are created for a given culture group. The products and processes make real the core ideas of the society. The educational systems, legal systems, and media are examples of how customs, norms, scripts, practices and institutions reflect and promote the collective reality of the culture.

(c) Local worlds – living the core ideas

The particular sociopsychological products from the previous stage (e.g., customs, norms, and practices) are transformed into lived experiences. Experiences from any setting, circumstances, and situations of everyday life (e.g., home, school, and workplace) are considered as the local worlds. This includes drinking with friends, discussing politics, and playing baseball. These settings make up an individual's immediate social environment and where the customs, norms, and practices become lived experiences.

(d) Habitual psychological tendencies reflecting the core ideas

The ways of thinking, feeling, striving, knowing, understanding, deciding, managing, adjusting, and adapting are structured, reinforced, and maintained by an individual's particular local worlds. For instance, if an individual's daily practices and formal institutions promote independence, it will lead to beliefs and experience that they are autonomous and bounded selves who are distinct from other members of the collective.

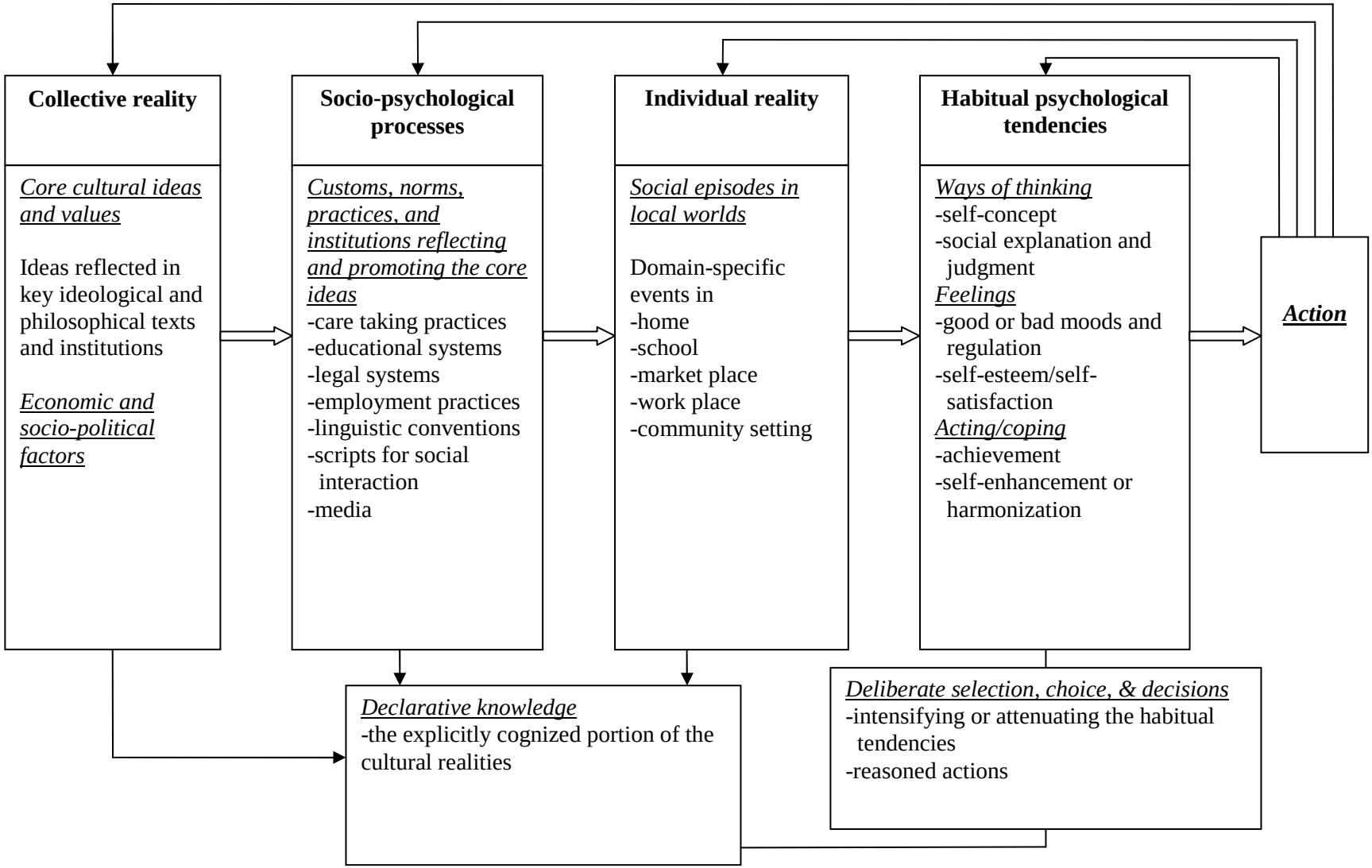

Figure 2. Cultural shaping of psychological reality (Markus & Kitayama, 1994)

The top level of the psychological processes (Figure 2) indicates feedback loops and directions from each individual's action to each stage exist. The bottom part of the process represents a cognitive influence on an individual. This process illustrates that an individual's action would influence the nature of the situations according to their action, such as core values, customs, and social settings (Markus & Kitayama, 1994).

Self-Construal

As mentioned, the concept of self is fundamental to perceptions, evaluation, and behaviors of an individual (Markus & Kitayama, 1991). Cultural norms, values, and beliefs are influential forces in shaping an individual's concept of self. Triandis (1989) presented an explanation of the influence of culture on behavior that the concept of self is a mediating variable between culture and individual behavior. He contended that cultural variations in individualism-collectivism are connected directly to the ways members of cultures conceive of themselves. Culture influences what individuals "believe about the relationship between the self and others and, especially, the degree to which they see themselves as separate from others or as connected with others" (Markus & Kitayama, 1994, p. 226). By examining self-conceptions between people in American and Asian societies, Markus and Kitayama (1991) originated the idea of construal of the self in a cultural context. They presented two distinct types of construals in which an individual constructs the self in relation to others. These two types of self-construal (independent and interdependent) are associated with how people view their relationships between themselves and others. The self-construals refer to the degree to which people conceive of themselves as connected or separate in relationship to others.

According to Markus and Kitayama (1991), the normative goals in many Western cultures encourage the construction of an independent self-construal based on seeing one's self as separate from others. Tasks within an independent self-construal include the promotion of personal goals, self-expression, and distinction between self and group. Normative goals in many Asian cultures encourage the construction of an interdependent self-construal, which is based on the individual seeing him/her self as closely connected to others. Tasks within an interdependent construal of self include the promotion of group goals, occupying one's proper place in the group, and fitting into group norms.

Self-construal is conceptualized as "a constellation of thoughts, feelings, and actions concerning one's relationship to others, and the self as distinct from others" (Singelis, 1994, p. 581). The dominant self-construal of an individual is mainly determined by the cultural contexts of individualism and collectivism (Markus & Kitayama, 1991; Singelis et al., 1999; Triandis, 1995). Further, self-construals correspond the different aspects of self-concepts in individualism and collectivism (Bresnahan, Levine, Shearman, Lee, Park, & Kiyomiya, 2005; Singelis et al., 1999).

An important distinction is that independent and interdependent self-construals refer to views of the self, which are considered variables at an individual level. Individualism-Collectivism refers to a culture as a whole, which reflect differences in cultures as a cultural variable (Singelis, 1994; Triandis, 1995; 2004).

The I-C cultural dimension has been widely used to explain cultural differences and similarities in behavior. However, using cultural dimensions of variability such as I-C to explain individual-level behavior is not appropriate (Kashima, 1989). When samples are drawn from individualistic and collectivistic cultures, the respondents in the sample

may not represent the predominant cultural tendency of individualism-collectivism. Because individualism and collectivism exist in all cultures, cultural-level tendencies in I-C alone cannot be used to predict individuals' behaviors (Gudykunst et al., 1996; Kapoor et al., 2003; Triandis, 1995). Researchers further suggest that the influence of cultural-level I-C on individuals' behaviors is mediated by self-construals (Gudykunst et al., 1996; Kashima, 1989; Markus & Kitayama, 1991; Triandis, 1989). Independent and interdependent self-construals have been identified as the cognitive correlates of the cultural I-C dimension, especially in communication behaviors (Gudykunst et al., 1996; Kim et al., 1996).

Independent Self-Construal

Independent self-construal refers to a bound, unique, autonomous, and stable self that tends to perceive itself as separate from its roles and relationships based on the identity of internal characteristics, dispositions, and traits (Markus & Kitayama, 1991; Singelis, 1994). People with an independent self-construal tend to express themselves directly to satisfy their own needs and to gain self-esteem. The most important inner attribute for individuals with independent self-construal in regulating their behaviors is to express themselves directly (Markus & Kitayama, 1991; Singelis, 1994; Triandis, 1989; Yamada & Singelis, 1999). Singelis (1994) summarized the elements that comprise an independent self-construal: "(a) internal abilities, thoughts, and feelings, (b) being unique and expressing the self, (c) realizing internal attributes and promoting one's own goals, and (d) being direct in communication" (Singelis, 1994, p. 581). Markus and Kitayama (1991) described individuals with independent self-construal as being egocentric, separate, autonomous, idiocentric, and self-contained. People from Western cultures

(particularly in individualist societies) have independent self-construal tendencies (Markus & Kitayama, 1991; Triandis, 1989; Yamada & Singelis, 1999).

Interdependent Self-Construal

Interdependent self-construal has been defined as a flexible and variable self, which is based on context more than internal attributes (Markus & Kitayama, 1991; Singelis, 1994; Yamada & Singelis, 1999). People with an interdependent self-construal typically care about others' feelings and unexpressed thoughts, and tend to communicate indirectly. Self-esteem of the interdependent self comes from "harmonies between interpersonal relationships and the ability adjusting to various situations" (Markus & Kitayama, 1991, p. 225). The interdependent self tends to regulate behaviors depending upon others and contextual factors; thus, this self emphasizes relational-centered orientations through conformity, harmony within group, and attention to relationships over personal goals (Markus & Kitayama, 1991; Singelis, 1994; Yamada & Singelis, 1999). The elements that embody an interdependent self-construal are: "(a) external, public features such as statuses, roles, and relationships, (b) belonging and fitting in, (c) occupying one's proper place and engaging in appropriate action, and (d) being indirect in communication and 'reading others' minds' " (Singelis, 1994, p. 581). Markus and Kitayama (1991) describe individuals with interdependent self-constural as sociocentric, holistic, collective, allocentric, ensembled, constitutive, contextualist, and relational. Persons in non-Western societies, particularly in collectivist societies, often emphasize a self construal closely tied to relationships and societal roles (Markus & Kitayama, 1991; Triandis, 1989; Singelis, 1994; Yamada & Singelis, 1999).

Coexistence of Self-Construal

Differences between interdependent and independent self-construals are not only found between cultures, but also have been revealed within cultures (Singelis, 1994). Evidence suggests that individuals have both independent and interdependent self-images (Singelis, 1994 & Yamada & Singelis, 1999; Green & Paez, 2005; Walker, Deng & Dieser, 2005). Both attitudes can coexist in one individual (Singelis, 1994; Green & Paez, 2005; Walker, Deng & Dieser, 2005; Yamada & Singelis, 1999). African American people serve as an example of the coexistence of self-image. African Americans tend to hold both interdependent beliefs (of their ancestry) and independent beliefs (associated with the dominant Caucasian American culture).

Cross and Markus (1991) supported two dimensions of self in their study of stress and coping behavior among North American and East Asian exchange students. Asian students who considered the interdependent self image as less important and had developed the independent aspects of the self reported less stress. Participants in this were asked to indicate the importance of the independent and interdependent aspects of self. Researchers found that the Asian exchange students attached more importance to the interdependent self than did the American students; however, importance scores on the independent self did not differ between the groups. The results revealed that the Asian exchange students appeared to have developed an internal, private, autonomous self-system while retaining the interdependent aspects of the self.

According to Singelis (1994), socialization practices within culture and contact with new cultures both may contribute to the construction of the images of self. An individual may be high on individualist and low on collectivist attributes or vice versa, or

may have high or low levels on both individualist and collectivist tendencies (Green & Paez, 2005; Singelis, 1994; Walker et al., 2001). Every individual has both self-construals, but according to Markus and Kitayama (1991), individuals tend to use one self-construal more than the other to guide their behaviors (Markus & Kitayama, 1991; Gudykunst & Lee, 2003).

Typologies of Self-Construal

The traditional self-construal dichotomy may not adequately reflect individual variation in behavior across individualistic and collectivistic cultures. Evidence of the multidimensionality of self-construal has been studied, indicating the coexistence of both an independent and an interdependent self-image (Kim et al., 1996; Singelis & Sharkey, 1995; Yamada & Singelis, 1999; Yum, 2004). Not all individuals from individualist societies have primarily independent self-construals, nor do all those from collectivist cultures exhibit primarily interdependent self-construals.

According to Cross and Markus (1991), in their study of stress and coping behaviors among North American students and East Asian exchange students, the multiple dimensions of self were supported (e.g., Kim et al., 1996). East Asian exchange students attach more importance to the interdependent dimension of the self than did the North American students when asked to indicate the importance of the independent and interdependent aspects of the self. However, there was no significant difference between the American and the East Asian students in importance scores on the independent dimension. The results in Cross and Markus' study showed that the East Asian exchange students have developed an internal, private, autonomous independent self tendency while still holding an interdependent self-construal (e.g., Kim et al., 1996).

Four self-construal categories (Kim et al., 1996; Yamada & Singelis, 1999) correspond to the patterns of self. They are *Bicultural, Western, Traditional*, and *Culturally-Alienated*.

Bicultural (High I High C)

Bicultural self-construal refers to the personality disposition of an individual who has both a well-developed independent self-construal and well-developed interdependent self-construal. Bicultural self-construal is a product of a multicultural society, and people in this type of society are more likely to be flexible and adaptive than others in interpersonal interactions. Individuals with bicultural tendencies adjust their selections of behavior depending upon the cultural context. Hawaii is an example of a multicultural culture when compared to relatively homogeneous cultures such as the continental United States (Bhawuk & Brislin, 1992; Kim, Hunter, Miyahara, Horvath, Bresnahan, & Yoon, 1996; Yamada & Singelis, 1999; Yum, 2004).

Western (High I Low C)

Individuals who are categorized into the *Western* group have strong independent self views. They are high on the independent and low on interdependent self-construal dimensions. People with Western types of self images are socialized within an individualist culture. The United States is an example nation representing a culture with a Western type of self-construal (Bhawuk & Brislin, 1992; Kim et al., 1996; Yamada & Singelis, 1999; Yum, 2004).

Traditional (Low I High C)

People with *Traditional* patterns of self image connect to strong interdependent and weak independent self-construals. The Traditional pattern refers to individuals

endorsing what is known as collectivism at the culture level. This term is employed to imply that the individual has not assimilated into an individualist society, but has maintained the traditional/original cultural sense of self. People from Asian countries are examples of individuals who exhibit a Traditional pattern of self-construal. A Traditional type of self-construal maintains an original cultural sense of self, and originates from collectivist societies (Bhawuk & Brislin, 1992; Kim et al., 1996; Yamada & Singelis, 1999; Yum, 2004).

Culturally-Alienated (Low I Low C)

Individuals who fall into the *Culturally-Alienated* pattern have low levels of both independent and interdependent self images. People who are alienated from both the western mainstream culture and from non-western cultural groups are in this category. People who are homeless and those who are refugees often represent this category (Bhawuk & Brislin, 1992; Kim et al., 1996; Yamada & Singelis, 1999; Yum, 2004). Researchers indentified students not fitting in with the school culture as an identifiable and accessible sample for the Culturally-Alienated pattern (Yamada & Singelis, 1999).

The four conceptualized types of self-construal suggest that every person possesses both independent and interdependent self views. Many self-construal researchers, however, assert that one self-construal is predominant in most situations for members of specific cultural groups (Markus & Kitayama, 1991; Oyserman et al, 2002). Self-construals are individual-level factors that mediate the influence of cultural individualism-collectivism (Gudykunst & Lee, 2003). The two aspects of self-construal may cross boundaries and coexist in an individual. This is due, in part, to the increased diversity of population in the world.

I-C at the Individual Level

Culture influences the way individuals are socialized in terms of individualistic and collectivistic tendencies. Individualism-collectivism directly influences communication behaviors by affecting norms and rules that guide behavior. In addition to cultural norms and rules, individualism and collectivism influence the ways individuals are socialized in their cultures. The tendencies that individuals learn when being socialized into their cultures influence individual-level factors such as self-construal (e.g., the way individuals conceive of themselves) (Gudykunst et al., 1996; Markus & Kitayama, 1991) (See Figure 3). Further, people in individualistic societies are socialized to rely predominantly on an independent self-construal, whereas those in collectivistic cultures are socialized to rely predominantly on an interdependent self-construal (Gudykunst et al., 1996; Singelis, 1994). This means that cultural individualism-collectivism indirectly influences behaviors through the characteristics individuals learn when they are socialized.

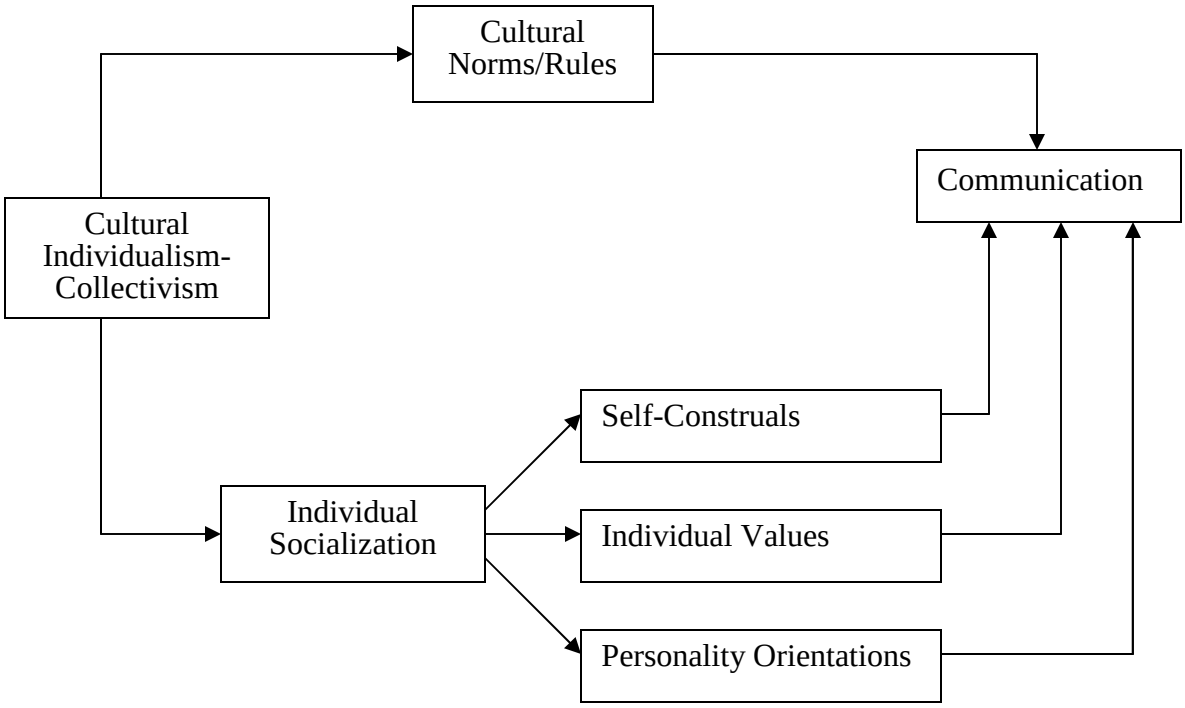

Figure 3. The Influence of Cultural Individualism-Collectivism on Communication Behavior (Gudykunst et al., 1996).

According to Gudykunst (1998), there are at least three different individual characteristics that mediate the impact of cultural I-C on communication behavior. They are personality orientation, individuals' values, and self-construal (Figure 2). Personality orientations refer to the inherent traits or personal characteristics of an individual. Individual values are the guiding principles held by the individuals. Self-construals are the various ways individuals conceive of themselves. Gudykunst and Lee (2003) state that "researchers and theorists must decide which of the three individual-level factors mediate the influence of cultural-level individualism-collectivism with respect to the specific communication variables they are explaining" (p. 31).

Personality Orientations

An individuals' personality orientation is the first factor that mediates the influence of cultural I-C on communication, according to Gudykunst (1998). Trandis, Leung, Villareal, and Clack (1985) proposed the used of idiocentrism and allocentrism as personality factors common to individualism and collectivism. Idiocentrism indicates personal individualism and allocentrism links to personal collectivism. They found that allocentrism is positively correlated with social support and negatively associated with alienation and anomie (e.g., feelings of normlessness) in the United States. Idiocentrism is positively associated with achievement and perceived loneliness in the United States.

Idiocentric concepts were defined as "personal qualities, attitudes, beliefs, or behaviors that do not relate to others," whereas group cognitions were described to as "demographic categories or groups with which the subject is likely to be experiencing common fate" (Trafimow,Triandis & Goto, 1991, p. 647). By asking participants to complete 20 sentences beginning with "I am…," researchers found that North American participants provided more idiocentric responses, and a lower proportion of group related responses than Chinese subjects. Allocentrism refers to "one's tendency to give priority to the collective self over the private self, especially when these two come into conflict" (Yamaguchi, Kuhlman, & Sugimori, 1995, p. 659). Allocentrics emphasize the importance of in-group goals and needs, duty to in-groups, and shared beliefs, compared to idiocentrics who focus on their own goals, needs, pleasure and personal beliefs.

Gudykunst et al. (1995) examined university students' self-monitoring tendencies and concern for social appropriateness between China and England. They found that English students (idiocentrics) were able to better modify their self-presentations, avoid

public performances, and show greater sensitivity to others' expressive behaviors than Chinese students (allocentrics). In contrast, Chinese students relied more on social comparison information than English students, particularly social status in relation to others when interacting.

Allocentric individuals in collectivistic societies "feel positive about accepting ingroup norms and do not even raise question of whether or not to accept them," and idiocentric individuals in collectivistic cultures "feel ambivalent and even bitter about acceptance of ingroup norms" (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988, p. 325). On the other hand, idiocentric individuals in individualistic societies consider it natural to "do their own thing" and disregard the needs of their ingroups, whereas allocentric individuals in individualistic cultures are concerned about their ingroups (Triandis et al., 1988).

Yamaguchi et al. (1995) discovered that "allocentric tendencies are associated with the expectations of rewards and the concern about punishments from in-group members and low need for being unique in both individualist and collectivist cultures" (p. 668). Lee and Ward (1998) examined the relationships among idiocentrism-allocentrism, ethnicity, and inter-group attitudes in Singapore. Their results indicated that allocentric individuals tend to hold more positive attitudes toward their in-groups than outgroups. Triandis and Suh (2002) found that approximately sixty percent of individuals in collectivist cultures are allocentric, and about the same proportion of those in individualist cultures are idiocentrics.

In Chatman and Barsade's (1995) study, allocentrics and idiocentrics were randomly assigned into both individualistic and collectivistic situations to assess their

cooperative behaviors in terms of how well individuals in various conditions are able to work together in an assigned simulation task. Researchers discovered that allocentric people in collectivistic situations were the most cooperative and those assigned to individualistic situations were the least cooperative. In addition, idiocentric persons who were assigned to collectivistic situations were somewhat cooperative. Triandis (2001) further referred to idiocentrism and allocentrism as "situation-specific dispositions" and asserted that, "the situation is a powerful predictor of the level of cooperation, and cooperation is maximal when personality and situation jointly call for it" (p. 912).

Individual Values

Individual values have direct impact on behaviors. According to Ball-Rokeach, Rokeach, and Grube (1984), values are the central core and component to individuals' personalities and help to maintain and enhance individuals' self-esteem. Feather (1995) referred to values as "abstract structures that involve the beliefs that people hold about desirable ways of behaving or about desirable end states" (p. 1135). He found that the type of values individuals hold influences the valences (positiveness/negativeness) they attach to different ways of their behaviors (e.g., if individuals value self-direction they view making decisions alone positively).

Schwartz (1990) defined values as "people's conceptions of the goals that serve as guiding principles in their lives," and values can vary in "importance, transcend specific situations, and express the interests of individuals and of collectivities" (p. 142). He argued that individualistic and collectivistic value structures are not necessarily the same as cultural value structures. People can hold both individualistic and collectivistic values, although one tendency tends to predominate.

Schwartz and Bilsky (1987) developed a sentence mapping technique and smallest space analysis method for analyzing data from Israeli teachers and German students. They found that three motivational domains serve the interest of the individualists, collectivists, and both. The motivational domains of self-direction, achievement, and enjoyment serve individualistic interests; the motivational domains of restrictive conformity, prosocial tendency, and security serve collective interests; and the motivational domain of maturity serves both individualists and collectivists. Schwartz and Bilsky (1990) discovered that these findings generalize by using data from Australia, Finland, Hong Kong, Spain, and the United States.

Triandis et al. (1990) also conducted a study examining 36 specific values derived from the motivational domains identified in Schwartz and Bilsky (1987, 1990). They found that equality, freedom, an exciting life, a varied life, and an enjoyable life linked to individualist values, social order, self-discipline, social recognition, humility, honoring parents and elders, accepting one's position in life, and preserving one's public image were associated with collectivist values. Schwartz (1992) isolated 11 individual value domains that specify the structure of values and consist of specific values. Schwartz contended that value domains can serve individualistic, collectivistic, or mixed interests. He discovered that tradition, conformity, and benevolence were collectivistic values. Stimulation, hedonism, power, achievement and self-direction are value domains that serve individualist interests. The value domains of security, universalism, and spirituality serve mixed interests.

Communication

One of the major distinctions that differentiate individualistic and collectivistic cultures is the relative influence that individuals and in-groups have on behavior, such as communication (Gudykunst, 1998; Kim et al., 1996; Triandis, 1988). Gudykunst et al. (1996) found that individuals with an independent self-construal and individualistic values tend to guide their behaviors by their feelings and are more likely to be more direct, open, precise, and dramatic in their communicative behaviors. On the contrary, individuals with an interdependent self-construal and collectivistic values tend to be interpersonally sensitive and are more likely to use indirect communication behaviors.

Researchers have found that the degree of collectivism or individualism present in a culture influences the type of in-group and out-group relationship and how individuals communicate with in-group and out-group members. The greater the degree of collectivism presents in a culture, the greater the differences in in-group and out-group communication (Gudykunst et al., 1987). A larger number of in-groups in individualistic cultures exert less influence on individuals' behavior than in collectivistic cultures with few general in-groups (Triandis, 1988).

Triandis (1988) argued that in-groups are more important in collectivist than in individualistic cultures. He contended that the impact of in-groups would become narrower and less deep when the number of in-groups increases. People in individualistic cultures are more likely to have many specific in-groups than those in collectivistic cultures; therefore, the in-groups exert less influence on individuals' behavior in individualistic cultures than in collectivistic cultures where they have few in-groups. Triandis (1988) also asserted that individuals in collectivist cultures tend to draw sharper

distinctions between members of in-groups and out-groups. In addition, people in collectivist cultures perceive in-group relationships to be more intimate than those in individualistic cultures.

Triandis's conceptualization suggested that differences in communication behaviors with members of in-groups and out-groups exist in collectivistic cultures, but not in individualistic cultures. Gudykunst and Nishda (1986) found that Japanese students have more attributional confidence regarding their classmates (considered as members of an in-group) than students in the United States, whereas the reverse pattern (less attributional confidence) exists for strangers (members of an out-group).

Gudykunst, Yoon, and Nishda (1987) investigated the influence of individualism on social penetration processes by examining in-group and out-group relationships in Japan, Korea, and the United States. Their findings supported predictions derived from Triandis' conceptualization of the focus on in-group relationships in collectivist societies. Researchers indicated that the greater the degree of collectivism present in a culture, the greater the differences between in-group and out-group communication in terms of the intimacy of communication (personalization), coordination of communication (synchronization), and difficulty in communication (Gudykunst, et al., 1987).

Triandis (1988) posited greater differentiation between in-groups and out-groups in collectivist cultures than in individualistic cultures. "Collectivism is associated with homogeneity of affect (if in-group members are sad, one is sad; if joyful, one is joyful); unquestioned acceptance of in-groups norms, attitudes, and values; interpersonal relations within the ingroup are seen as an end in themselves; …[and] the ingroup is responsible for the action of its members" (p. 96). These tendencies lead to solidarity in the actions of

in-group members toward members of out-groups for members in the collectivist cultures. By contrast, people of individualistic cultures "are emotionally detached from their ingroups….They perceive their ingroups as highly heterogeneous…Individual behavior is best explained by internal mechanisms, rather than ingroup norms, goals, and values" (Triandis, 1990, p. 97).

People from individualist societies tend to be emotionally independent from groups. The groups do not strongly affect individuals' behavior even when they belong to many groups. In contrast, those from collectivist cultures are inclined to be concerned for others, cooperate among in-group members, and develop a feeling of "group" with other members (Gudykunst & Ting-Toomey, 1988; Gudykunst et al., 1992; Hofstede, 1980; Kapoor et al., 2003; Triandis, 1988). People in collectivistic cultures tend to apply different value standards for members of their in-groups and out-groups, compared to people in individualistic cultures, who tend to apply the same value standard to all (Gudykunst & Ting-Toomey, 1988; Hofstede, 1980). Therefore, the differentiation of communication between members of in-groups and out-groups in collectivistic cultures is greater than in individualistic culture (Gudykunst et al., 1992; Triandis, 1988).

Further, people in individualist cultures tend to communicate verbally. Social conversations in individualist societies are considered "compulsory" and silence is considered abnormal (Gudykunst, 1991). People in collectivist cultures feel being together is more sufficient than talking unless there is information to be transferred. According to Triandis (2001), when entering new groups, those from collectivist cultures are rather shy compared to those from individualist cultures, who are more skilled in entering new groups and dealing with people in superficial ways. In addition, those from

collectivist cultures pay more attention to the context (*how* something is said) during communication, whereas those from individualist cultures focus mostly on the content (*what* was said) (Gudykunst, 1991). “The specific language is considered greatly important in individualist cultures, whereas the level of voice, body posture, eye contact, and accompanying gestures are important in collectivist cultures” (Triandis, 2001, p. 916).

Markus and Kitayama (1991) contended that self-construals have impacts in all aspects of individuals’ lives. Gudykunst et al. (1996) identified self-construals as better predictors of low- and high-context communication styles than the cultural level individualism-collectivism. Further, independent and interdependent self-construals were identified as the cognitive correlates of the cultural variability dimension individualism-collectivism (Gudykunst et al., 1996; Kim et al., 1996), especially in communication behaviors. According to Kim et al. (2001), through an individual level approach, stereotypical cultural distinctions can be eliminated.

Low- Versus High- Context Communication

According to Hall (1976), low-context communication is more strongly related to individualism and high-context communication is associated with collectivism. Individualism and collectivism influence the use of low- and high-context communication in different societies (Gudykunst, 1998; Gudykunst et al., 1996; Gudykunst & Ting-Toomey, 1988).

Hall (1976) first exemplified low- and high- context communication. A low-context (LC) communication or message refers to that where, “the mass of information is vested in the explicit code” (Hall, 1976; p. 70). This means that in LC communication the

message itself is relatively more important than the context surrounding the message. In contrast, a high-context (HC) communication or message is that where "most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message" (Hall, 1976, p. 79). In HC communication, most of the information is embedded in the context or internalized by listeners who are expected to listen and infer the speaker's intention from what is not explicitly said.

In addition to culture, the formality of a situation and interpersonal relations influence the relative use of the two styles of communication. This means that people from the same culture may use low- or high-context communications, depending on the situation and the person with whom they are talking. For instance, in formal and legal situations, low-context communication is preferred. Low context communication also would be favored when speakers communicate with those with whom they have little shared common ground (e.g., strangers). (Gudykunst, 1998; Gudykunst & Matsumoto,1996; Gudykunst & Ting-Toomey, 1998).

Low-Context Communication

In LC communication, the verbal messages transmitted by communicators are expected to "embody and invoke speakers' true intentions" (Gudykunst & Ting-Toomey, 1998, p. 100), to be consistent with their feelings and express their minds (Gudykunst et al., 1996; Hall, 1976). People in low-context cultures tend to value information that indicates "others' attitudes, values, emotions, and past behaviors" (Gudykunst & Nishida, 1986, p. 529). This matches people with an independent self-construal who are inclined

typically to employ direct, assertive, and confrontational communication strategies to satisfy their own needs (Gudykunst et al., 1996; Kim, 1994).

High-Context Communication

In contrast, HC communication involves transmitting indirect and implicit messages (Gudykunst et al., 1996; Hall, 1976). Verbal messages in the HC communication style are expected to communicate in ways that "camouflage and conceal speakers' true intentions" (Gudykunst, & Ting-Toomey, 1998, p. 100) to maintain harmony in their in-groups. People in high-context cultures place "emphasis on indirect forms of communication, silence, telepathy, and making allowances for others related to the value of harmony" (Gudykunst & Nishida, 1986, p. 529). The HC communication style requires the use of understatement and hesitation when transmitting messages (Gudykunst et al., 1996; Hall, 1976). People with interdependent self-construals typically care more about others' feelings and face, and prefer to use indirect, face-saving strategies and avoid confrontation (Gudykunst et al., 1996; Kim, 1994). These individuals care more about relational constraints (e.g., not hurting the other's feelings) and act accordingly (e.g., accommodation).

Hall (1976) took an individualistic versus collectivist approach to culture in his communication model, which linked high and low-context communications. Context in Hall's communication model is the information that accompanies or embodies an event and is bound up in the meaning of the event. Cultures transmit these messages verbally and non-verbally, and are mixed in these messages in various amounts (Hall, 1976).

A great deal of conflict can exist when high and low-context cultures attempt to communicate. People in high-context cultures do not want direct answers immediately

and are offended when those in low-context cultures demand them. By contrast, people in low-context cultures tend to be frustrated with the lack of information that is delivered in high-context messages (Gudykunst & Matsumoto, 1996). People from individualist cultures are more likely to view direct requests and outspokenness as the most effective strategy for gaining compliance; whereas those from collectivist cultures tend to perceive the same behaviors generally as least effective interpersonal strategies (Kim & Wilson, 1994). Collectivists are more concerned with avoiding hurting others' feelings and tend to be perceived as indirect, vague, and evasive. Individualists are more likely to be concerned with clarity of message and tend to be perceived as direct, open, and expressive of their opinions, consistent with feelings (Kim, 1994).

Perceptions of Communication

The characteristics of intercultural communication are different from intra-cultural interactions. Researchers have found distinctions when comparing intercultural and intra-cultural interactions. For instance, intercultural interactions had higher levels of uncertainty than did intra-cultural interactions (e.g., Gudykunst, 1983; Gudykunst, Chua, & Gray, 1987), higher anxiety with intercultural than intra-cultural interactions (Stephan & Stephan, 1985) and lower quality of communication in intercultural than in intra-cultural situations, especially in initial encounters (Hubbert, Guerrero, & Gudykunst, 1999). The aspects of communication that vary from intra-cultural to intercultural settings may represent an interaction adaptation for intercultural communication competence. Thus, to identify distinctive aspects of intercultural interactions may help explain the variation in anxiety and communication quality.

Perceptions of communication commonly refer to an indication of the characteristics of communication in various relationships and are related to variation in communication behaviors (Chen, 2002). Three dimensions of communication perceptions (personalness, synchrony, and difficulty) were applied to examine variation of interactions in interpersonal relationships. These dimensions were derived from studies of individuals about interactions in various intracultural interpersonal relationships. Knapp, Ellis, and Williams (1980) examined perceptions of communication with eight dimensions of communicative behavior (uniqueness, depth, breadth, difficulty, flexibility, spontaneity, smoothness, evaluation of interaction) as a function of type of relationship. The eight broad dimensions of communicative behavior are considered to vary with perceived changes in intimacy (e.g., as intimacy levels increase, communicative behaviors increase). Thirty items about specific communicative behaviors were used to tap the eight dimensions in six different relationships (e.g., lover, best friend, friend, colleague, pal, and acquaintance).

Knapp et al. (1980) found and labeled the first factor, "personalized communication" indicating the relation to intimacy (how close the interactants feel toward one another) of communication (e.g., "We tell each other personal things about ourselves – things we don't tell most people"). The second factor was labeled "synchronized communication" and is associated with the coordination of communication (e.g., "Due to mutual cooperation, our conversations are generally effortless and smooth flowing"). The third factor was labeled "difficult communication" referring to barriers to communication (e.g., "It is difficult for us to know when the other person is being serious or sarcastic.").

Personalness is “a function of relationship intimacy (or interpersonal distance) of the participants” (Chen, 2002, p. 134). Those who are in a close personal relationship generally perceive a high degree of intimacy from the relationship. Synchrony refers to “the smooth coordination of the interaction, which often is a function of mutual familiarity with each other’s communicative pattern” (p. 134). Individuals tend to perceive a higher degree of synchrony when they communicate with those with whom they have a history of interaction, or those who have a similar sociocultural background. Difficulty refers to “perceived barriers in communication”, which indicates realization of obstacles to communication (p. 134). The difficulty dimension is not simply a lack of synchrony in an interaction. The difficulty in an interaction is considered as severely or extremely lacking in the general information exchange or lacking basic mutual understanding. Difficulty and synchrony are related to the interaction process and are factors about coordination and progress of the interaction (Chen, 2002).

These three dimensions of communication perceptions have been used to identify interpersonal relationships. The perceptions of communication have proven significant in comparing in-group and out-group interactions, cross-cultural differences of in-group and out-group distinctions, and in intercultural communication (Chen, 2002; Gudykunst, Yoon, & Nishisa, 1987). For example, Gudykunst, et al. (1987) reported that interactions with out-groups, in comparison to those with in-groups, were generally less personal, less synchronized, and more difficult. Further, there were cross-cultural differences with respect to this distinction among U.S. Americans, Japanese, and South Koreans.

Communication Satisfaction

Hecht (1978c) stated that communication satisfaction is a socio-emotional outcome resulting from communication interactions. According to Hecht (1978a), satisfaction is conceptualized as one kind of internal reinforcer. Satisfaction is conceptualized as the affective response that reflects the emotional reaction toward the interaction and the degree of meeting/failing the fulfillment of expectation (Hecht, 1978b). The more the communicative expectations are met in an interaction, the more a participant feels satisfied. Satisfaction can also symbolize enjoyable, fulfilling experiences in interactions. Communication satisfaction was also conceived of as a measure of communication effectiveness between communicators of different racial or ethnic backgrounds (e.g., Hecht, Ribeau, & Albers, 1989).

In intercultural communication between interpersonal relationship partners, interaction participants feel more satisfied with the communication when they perceive the communication as personalized, synchronized, and not difficult (Chen, 2002). More specifically, communication satisfaction increases when individuals get to know each other better, because intimacy is premised on mutual familiarity. Therefore, mutual familiarity is related to communication satisfaction. Individuals prefer to interact with people who are perceived as similar to themselves (Lee & Gudykunst, 2001). There are many different aspects in which individuals can be perceived as similar, such as age, social class, ethnicity, religion, communication style, personality, attitudes, and values (Lee & Gudykunst, 2001).

Gudykunst and Shapiro (1996) found that perceived quality of communication is higher in encounters with friends than in encounters with acquaintances, and perceived

quality is the lowest in encounters with strangers. Researchers indicated that as relationships become more intimate, quality of communication increases (Gudykunst & Shapiro, 1996). As relationships become more intimate, communicators become more personalized and synchronized, and there is less difficulty in communication (Knapp, Ellis, & Williams, 1980).

Gudykunst and Shapiro (1996) compared interaction in three types of intercultural relationships – those between friends, between acquaintances, and between strangers. The results illustrated that the quality of communication was highest between friends, followed by between acquaintances, and was lowest between strangers. The primary difference between a friend and an acquaintance, or a friend and a stranger, is that of personal familiarity. Personal familiarity between friends is higher than between acquaintances and lower for strangers (Chen, 2002).

Gudykunst et al. (1987) investigated perceptions of an interaction and communication satisfaction in intercultural interpersonal relationships. They found that in intercultural communication between interpersonal relationship partners, the more individuals perceived the communication as personalized, synchronized, and less difficult, the more they felt satisfied with the communication. They also reported that satisfaction was more likely to be higher in intra-group encounters than in intergroup encounters. Researchers revealed the influence of intimacy level of relationships on satisfaction with intercultural communication in relationships. Intimacy was premised on mutual familiarity; therefore, as individuals become familiar and know each other better, communication satisfaction increases.

Individuals' personal and social identities also affect communication behaviors. According to Gudykunst and Shapiro (1996), social identities predominate over personal identities in initial interactions with strangers because in such situations people predict others' behaviors based on cultural and/or sociological information. When relationships become more intimate and close, the influence of personal identities increases and the effect of social identities decreases. Because psychological information is used to predict others' behaviors, personal identities become predominant when relationships become close (e.g., close friendships) (Gudykunst & Shapiro, 1996).

Avedon's Interaction Patterns

The competitive or cooperative nature of relationships among participants and groups in activities were addressed in Avedon's work with interactive processes. Avedon (1974) identified eight different types of interactive processes which superimpose recreation service program structures (e.g., groups, classes, clubs) found in activities. The patterns are intra-individual, extra-individual, aggregate, inter-individual, unilateral, multilateral, intra-group, and intergroup.

According to Avedon (1974), the *intra-individual* interactive pattern refers to actions that take place within the mind of an individual, or involves the mind and a part of the body. This type of interaction requires no contact with another individual or any external object (e.g., daydreaming). The *extra-individual* interactive pattern is defined as action that is directed by an individual toward an object in the environment, and requires no contact with another individual (e.g., reading, walking, watching television alone, and most solitary arts or crafts activities).

The *aggregate* interactive pattern is associated with action that is directed by an individual toward an object in the environment while in the company of other individuals, who are also directing actions toward objects in the environment; no personal interaction between each individual occurs. The aggregate interaction pattern is also referred to as parallel play, such as playing in a bingo game. The *inter-individual* pattern refers to competitive interaction through activity from one individual toward another; chess, singles badminton, or a variety of other two-person activities are examples of this pattern. The *unilateral* pattern refers to actions of a competitive nature among three or more individuals, one of whom is an antagonist. Interaction is in simultaneous competitive dyadic relationships in this pattern, such as the competitive relationship between goalkeeper and soccer players in a soccer game.

The *multilateral* interaction pattern is associated with action of a competitive nature among more than three persons, with no one as an antagonist (e.g., a poker game, "21" street basketball game). The *intra-group* interaction pattern refers to an action of a cooperative nature by two or more people intent upon reaching a mutual goal, which requires positive verbal and nonverbal interaction, such as playing in a band, singing in a choir, acting in a play. The *intergroup interaction* pattern is action of a competitive nature between two or more intragroups, and is inherent in team games such as soccer and bridge (Avedon, 1974).

Avedon's interaction patterns illustrate various types of relationships and interaction among participants and groups in activities. It also addresses the competitive and cooperative relationships that occur in activities. The forms of activity (Team,

Partnered, or Individual) rather than the forms of relationships were the focus of the study reported here, not competitive or cooperative activities.

The preceding review illustrates differences between individualistic and collectivistic cultures impacting individuals on communication, intercultural relationships on communication, interaction, and in-group/out-group relationships. In this study, the influences among I-C dimensions, forms of activity, and activity participation pattern on the level of satisfaction with short-term interactions (greeting, 2-3 minute conversations) at a university campus recreation center were investigated. The following section examines related literature involving campus recreation.

Intramural/Campus Recreation

Participation in extracurricular activities provides students opportunities to apply classroom knowledge to real world settings and develop skills that will assist in the practical realities of living after graduation (Astin, 1993; Kuh, 1995, Montelongo, 2002). Extracurricular activities include campus events and activities not falling within the scope of the academic curriculum, and participation is voluntary. Research related to extracurricular involvement has emphasized the importance of supplementing and enhancing students' academic learning with learning that occurs outside the formal classroom setting. The enhancement of student learning with activities outside the classroom environment is consistent with the goals of student affairs work, which is to develop the whole student (Montelonge, 2002).

Participation in campus recreation programs is one type of extracurricular activity that emphasizes sports or fitness experiences in the pursuit of leisure. Intramural/campus recreation programs align with the overall mission of a university to enhance the quality

of student life and to prepare students for the future. Campus recreation programs have evolved into independent administrative units and departments, that engage in construction, operation, and maintenance of student recreation facilities (Noyes, 1996).

Campus recreation supports the overall learning environment and students' college experiences. These programs also provide opportunities for students to develop and refine their skills and interests in recreation. Students can continue to be involved in recreational activities and accrue benefits from participation (Weese, 1997). Further, campus recreation supports universities in promoting school spirit and a feeling of affiliation with other students and the institution (Matthews, 1984). Campus recreation programs provide a place for students to combat the pressures of higher education (Shannon, 1987) and contribute to student retention (Smith, 1993).

Campus recreation programs include recreational events and activities held on campus for students, faculty, and staff at higher educational institutions (Byl, 2002). The activities are considered extracurricular because they are initiated and conducted by students and carried on outside of regular academic hours on a voluntary and noncredit basis (Tillman et. al, 1996). Such programs offer various activities and services such as competitive intramurals, special events, tournaments, sports clubs, outdoor recreation, open recreation opportunities for self-directed activities, aerobic dance programs, and many other activities (Tillman et. al, 1996; Weese, 1997).

Haines (2000) found that physical well-being, sense of accomplishment, fitness, physical strength, and stress reduction were benefits of participation in campus recreation programs. Participating in recreation programs can relieve tension and academic stress. Studies indicate that students who are more physically active experience less anxiety and

depression than those who are not physically active. Enjoyment is considered a high-priority objective in every campus recreation program. Even the most intense competitive activities can provide a source of relaxation from the physical and psychological stress of a school day (Ragheb & McKinney, 1993; Tillman et al., 1996; Collins, Valerius, King, & Graham, 2001; Cai, 2000; Byl, 2002). According to Ragheb and McKinney (1993), the more recreation activities in which students participate, the less academic stress they perceived. In addition, the greater satisfaction students experienced in leisure, the lower academic stress they perceived.

The overall benefits of participation in campus recreation program are to enhance emotional well-being, reduce stress, and improve interaction with diverse people. Other benefits include serving as an important part of college social life, teaching team-building skills, improving communication skills, being an important part of the learning experience, aiding in time management, and improving leadership skills (NIRSA, 2004; Haines, 2000). These benefits are consistent with student involvement in higher education (Astin, 1984). Astin (1984) also identified self-confidence, persistence, empathy, social responsibility, and understanding of cultural differences as outcomes associated with student involvement in higher education.

Students attain and maintain satisfactory levels of physical fitness by participating in vigorous physical activities. The health concerns of universities regarding the effect of students' sedentary lifestyles, such as watching TV and playing computer games, are increasing. Campus recreation activities can help students to change their life patterns and assist in establishing a more active lifestyle (Tillman, et. al., 1996). Researchers have

also found that students who are physically active have higher academic achievement than those who are not physically active (Balady, 2000; Byl, 2002).

Researchers found that students perceived benefits from participation in recreation such as a feeling of physical well-being, stress reduction, respect for others, friendships, and self-confidence. Further, these benefits were found to be substantially more important for African American and Asian American students than for their Caucasian counterparts (Bryant et al., 1995).

Social interaction and teamwork experiences typically occur as part of participation in many campus recreation programs. Campus recreation programs provide opportunities for participants to meet people, interact with others, and to develop positive friendships (Byl, 2002; Dalgarn, 2001; Tillman, et. al, 1996). Students who participated heavily in university recreational programs and activities were found to be more socially oriented than those who did not participate (NIRSA, 2004). Students who did not participate in physical activity are much more likely to report having difficulties in their relationships with friends compared to those who are active in participation (Byl, 2002). Involvement in recreational programs provides opportunities and environments for social interactions by creating "opportunities for interaction, collaboration, and unification are essential if campuses are to develop a sense of community" (Dalgarn, 2001, p. 66). Several researchers found that students develop interpersonal and social skills, communication, companionship, and relationships when participating in recreational activities (Bloland, 1987; Dalgarn, 2001; Kerr & Downs, 2003; Todaro, 1993).

Recruitment and Retention

Researchers have revealed two main factors on student retention and success (Astin, 1984; Pascarella & Terenzini, 1991; Tinto, 1993), which are academic success and interpersonal success. Academic success includes the intellectual ability, experience, and training the student brings to the university and effective "studenting" behavior (e.g., attendance, proper scheduling of courses, meeting deadlines) at the university. Interpersonal success refers to the communicative and social skills the student brings to the university and the continued successful development of those skills at the university. Researchers reported that students who achieve academically and interpersonally tend to persist and graduate at a much higher rate than students who fail on one or both of these factors (McCorskey, Booth-Butterfield, & Payne, 1989). Recreation opportunities and involvement appear to assist in developing a positive self-concept and thus promote the integration process (Bryant et al., 1995).

Participation in campus recreation programs is positively correlated with overall university satisfaction and success (Kerr & Downs, 2003; NIRSA, 2004). Smith and Thomas (1989) revealed that two of the most powerful predictors of educational satisfaction of students were relationships with faculty and participation in campus recreation programs. They used survey data obtained from 1223 undergraduates at the University of Tennessee in Knoxville. Heavy users of campus recreation programs were found happier than light users and non-users. Participation and involvement in campus recreation programs have positive effects on student satisfaction with the university experience, degree aspirations, and student retention (Kerr & Downs, 2003; Pascarella & Terenzini, 1991; Ryan, 1990).

Campus recreation programs are considered as an integral part of higher education for educating students about using leisure time (Kerr & Downs, 2003; Pascarella & Terenzini, 1991; Ryan, 1990). Campus recreation programs contribute to increased student involvement in campus life. This may be translated into higher recruiting and retention rates of students (Haderlie, 1987). Haderlie claimed that "if a university can convince prospective students that it has the recreational facilities and programs to provide opportunities to learn lifetime sports skills and to instill exercise habits that will continue to benefit participants throughout their lives, it stands to profit from better recruiting and retention rates" (p. 25).

Participation in extracurricular activities is one of the important retention factors for college students, according to Pascarella and Terenzini (1991). Students with more frequent participation experiences in extracurricular activities, such as intramural programs, student activities, and residential living communities, tend to have higher degree aspirations, are inclined to develop stronger social connections and increased academic success, and are significantly more likely to remain in school than non-participating students. Peer groups and social interactions positively influence degree attainment (Pascarella & Terenzini, 1991; Tinto, 1993). Campus recreation centers and intramural programs are one of the places where social interactions take place (Pascarella & Terenzini, 1991).

Summary

Culture directly and indirectly impacts human behavior through creating values, norms, and rules (Triandis, 2004), and shaping individuals' personality dispositions (Markus & Kitayama, 1991). Individualistic and collectivistic cultures influence

communication behaviors and in-group relationships differently. Social interaction in students' college experiences is supported by campus recreation. Campus recreation settings provide students opportunities and places to meet people and interact with others to develop positive interpersonal and social skills, communication, and relationships (Byl, 2002; Bloland, 1987; Dalgarn, 2001; Kerr & Downs, 2003; Todaro, 1993).

CHAPTER III

METHODOLOGY

This study was designed to investigate the effects of independent-interdependent self-construal tendencies of subjects, forms of activities, and activity participation patterns on participants' levels of comfort and satisfaction with involvement in short-term interactions at a recreation center. This chapter includes a description of the sampling, data collection, procedures, instrumentation/measures, and data analysis.

Selection of Sample - Sampling Method

The sample for this study was selected from Oklahoma State University – Stillwater (OSU) students who used the Colvin Recreation Center during the Spring 2009 semester. Participants were required to be OSU students who had not previously completed the survey.

Oklahoma State University is a public university in Stillwater, a north-central Oklahoma community with a population of approximately 45,000. Approximately 21,000 students enrolled at Oklahoma State University (OSU)-Stillwater in the fall semester at 2008, including nearly 1,750 international students (Oklahoma State University Student Profile, 2008). Overall, 75 percent of students are from Oklahoma, 17 percent are from other states, and 8 percent from nearly 120 foreign countries. Fifty-two percent

of students are male and 48 percent are female.

Campus recreation programs are designed to provide opportunities, equipment, and space to assist university students, faculty, and staff members to pursue recreation interests. The Colvin Recreation Center (CRC) at Oklahoma State University was opened in 1969 and renovated in 2004. The CRC is generally open for participant use from 6 a.m. in the morning to midnight each day. Approximately 3,000 to 4,000 students visit the CRC on average per day. The CRC offers students, faculty, and staff near 240,000 square-feet of recreational space and facilities, including fitness-cardio machines, an indoor running track, indoor golf facility, basketball/volleyball/racquetball courts, aquatics (indoor/outdoor pools), free weights/weight machines, climbing wall, dance studios, and lounge areas. The CRC also provides opportunities for participants to experience various types of activities, such as intramurals, non-credit courses in fitness, wellness and aerobics, sport clubs, and outdoor recreation activities (CRC website, 2008).

Institutional Review Board (IRB) guidelines were followed in the selection of participants, data collection, and analysis of data. The IRB at Oklahoma State University reviewed and approved the research proposal. The letter from the IRB approval for this research is presented in Appendix C.

To contact student users of the CRC, the researcher used systematic random sampling. The investigator selected four days during a week and four blocks of time during each day for collecting data (see Table 1). During the selected block of time, every fifth student who was leaving the CRC main entrance was invited to participate in the study. The researcher delivered the questionnaire in person. The potential subjects who were invited to participate were told that the questionnaire was for a dissertation and that

their participation was voluntary. If they participated, they received a complimentary bottle of Gatorade. The total data collection period was two consecutive weeks. Three weekdays and one weekend day during a typical week in a semester were chosen to deliver the survey in order to recruit all kinds of possible CRC users.

Tuesday/Wednesday/Friday/Saturday were selected for the first week of data collection. Monday/Thursday/Friday/Sunday were selected for the second week. The reason for the selecting data collection days was that recreation participants usually have a workout schedule, such as Monday/Wednesday/Friday or Tuesday/Thursday. Friday was included in both data collection weeks because based on the personal observations and experiences of the investigator, international students most commonly participate in team activities (such as basketball/volleyball/badminton) on Friday nights. Four time periods during each data collection day (7-9am, 11am-1pm, 4-6pm, and 8-10pm) were set for survey administration.

Table 1. Data Collection Days

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1		✓	✓		✓	✓	
Week 2	✓			✓	✓		✓

Data Collection Procedures

Students were asked to complete the survey at the main entrance of the Colvin Recreation Center when they were leaving the facility at the end of a recreation experience. As individuals were leaving the activity area, the researcher approached them

to ask for their participation in the study. If the subject agreed, he or she was directed to study tables by vending machines to complete the survey at that time. Oral instruction was used to explain the purpose of the survey and note that participation was totally voluntary and they would be free to discontinue participation at any time.

All surveys were completed on site at the distribution time. Total time of administration for data collection from each participant was approximately 15 minutes. All students who participated in this study were assured of confidentiality. Anonymity was retained with regard to participant identities by not requiring names or any identifying numbers in the study. An information sheet was presented with the questionnaire, which was the oral consent script for subjects (See Appendix A). All information regarding rights, risks, voluntary participation, and contact information was on the script. As noted on the script, student consent was assumed from accepting and completing the survey. Subjects were reminded that they had the right to withdraw consent or discontinue participation up to the point of submitting the survey. Once the participants submitted their survey, it was not possible to recognize which survey belonged to which subject; thus, subjects could not withdraw participation after this time.

A sports drink (Gatorade) was offered to subjects for their participation in the study. This inducement was provided to subjects for their participation to help motivate them to take part in the study.

Instrumentation/Measures

The questionnaire administered to subjects included the Self-Construal Scale (SCS; Singelis, 1994), a section regarding participation experiences and short-term interaction involvement at the CRC, a section regarding the level of satisfaction with the

short-term interaction, and personal information (see Appendix B). The first part of the questionnaire measured participants' independent and interdependent self-construals, which represent central features of individualism and collectivism (Markus & Kitayama, 1991; Singelis, 1994). The second part of the questionnaire was designed to investigate participation experiences (such as frequency of visitation, forms of activity participation, and activity participation patterns) and the level of comfort with involvement in short-term interaction in various situations (such as greeting and short-term conversation with different people). The third section asked about satisfaction level of experiences involving short-term interactions at the CRC. The last part of the questionnaire asked for demographic information such as sex, age, year in school, ethnic background, and country of origin.

Self-Construal Scale

Self-construal is defined as "a constellation of thoughts, feelings, and actions concerning the relation of the self to others and the self as distinct from others" (Singelis et al., 1999; p. 316). The Self-Construal Scale (SCS) (Singelis, 1994) was developed as a 24-item quantitative Likert-type scale to measure the compound of thoughts, feelings, and actions that comprise independent and interdependent self-construal as separate dimensions (see Appendix B).

The SCS is designed to measure independent and interdependent self-construals, which represent central features of individualism and collectivism (Markus & Kitayama, 1991). The independent and interdependent subscales each consist of 12 items. Subjects were asked to indicate how much they agreed or disagreed with the statements on a 7-point Likert-type scale from 1 = *strongly disagree* to 7 = *strongly agree*. Sample

interdependent items comprised, “I will sacrifice my self-interest for the benefit of the group I am in” and “It is important for me to respect decisions made by the group.” Sample independent items included “Speaking up during a class is not a problem for me” and “I prefer to be direct and forthright when dealing with people I’ve just met.”

Researchers reported internal reliability and construct validity of the SCS (Singelis, 1994; Singelis & Sharkey, 1995; Coon & Kemmelmeier, 2001; Hardin, Varghese, Tran, & Carlson, 2006). The Cronbach alpha scores were .73 for the interdependent subscale and .69 for independent subscale. Further, divergent validity was supported when assessed as a two-factor model. Singelis (1994) applied a confirmatory factor analysis to compare the two-factor model with a one-factor model, because I-C had been previously considered as one continuum with two extremes.

Construct validity was obtained through the examination of differences in scores between Asian Americans and European Americans. Singelis (1994) found that Asian Americans (M = 4.91) rated higher on interdependence than European Americans (M = 4.37) and European Americans (M = 5.14), who rated higher on independence than Asian Americans (M = 4.55). These findings supported construct validity of the SCS, which were consistent with Markus and Kitayama’s (1991) assumptions of Asians as highly interdependent and European Americans as highly independent. Several researchers (Downie, Koestner, Horberg, & Haga, 2006; Gorski & Young, 2002; Singelis et al., 1995; Singelis et al., 1999; Coon & Kemmelmeier, 2001; Liu & Goto, 2007; Sato & McCann, 1998; Pohlmann, Carranza, Hannover, & Lyengar, 2007) have replicated these findings.

In this study, all 24 items from the two subscales of the SCS were randomly ordered to form a single questionnaire. Items 1, 4, 5, 9, 10, 11, 15, 16, 18, 19, 21, and 24 constituted the independent subscale and items 2, 3, 6, 7, 8, 12, 13, 14, 17, 20, 22, and 23 comprised the interdependent subscale (See Appendix B for a copy of the complete survey). The scores from each subscale were summed to give participants a separate independent score and an interdependent score. Higher scores indicated a stronger self-construal tendency in that domain. Both 12-item subscales range in possible total scores from 12 to 84.

The researcher for this study followed the scoring procedure used by Kim et al. (1996) in determining four types of self-construal tendencies (Bicultural, Western, Traditional, and Culturally-Alienated). The independent and interdependent score distributions were separated at the median, which provided four groups reflecting the four types of self-construal tendencies. Group 1 was categorized as Bicultural (High independent and High interdependent scores), group 2 was Western (High independent and Low interdependent scores), group 3 was Traditional (Low independent and High interdependent scores), and group 4 was Culturally-Alienated (Low independent and Low interdependent scores).

The median split procedure was used to determine the high and low independent self-construal and interdependent self-construal individuals (Kim et al., 1996). Participants with independent self-construal scores higher than the median score and with interdependent self-construal scores higher than the median score were assigned to group 1 (labeled as Bicultural). Participants with independent scores higher than the median score and with interdependent scores lower than the median score were assigned to group

2 (labeled as Western). Participants with independent scores lower than the median score and with interdependent scores higher than the median score were assigned to group 3 (labeled as Traditional). Participants with independent and interdependent self-construal scores lower than the median scores were assigned to group 4 (labeled as Culturally-Alienated). Participants who fell on the median score for either scale were recorded as "system missing" and accordingly excluded from analysis.

Participation Experiences and the Level of Comfort with Short-Term Interactions

Questions related to participation experiences were designed for this study. They included frequency of visiting the CRC, activity participation patterns (participate alone, with acquaintances, with friends, or with family), and the forms of activity participation (participate in team, partnered, or individual activity). In addition, questions 33 and 34 regarding to the level of comfort with short-term interaction involvement (greeting and at least 2 to 3 minute conversation) at the CRC during activity were included in this section.

The possible situations regarding greeting and conversations of two to three minutes were listed in detail for participants to rate their comfort level of involvement (e.g., "people I knew before who are acquaintances, and I greeted them first"). Participants were asked to indicate the level of comfort in each greeting and conversation situation they experienced on the day they visited the CRC on a 7-point Likert-scale (from 1 = *extremely anxious* to 7 = *extremely comfortable*) (See Appendix B).

The sum of all 18 scores in both greeting and conversation sections was calculated to represent participants' level of comfort with short-term interactions at the CRC. The possible score range was from 18 to 126. In this study, involvement with short-term interactions at the CRC included greeting and 2 to 3 minute conversation. Therefore,

a separate score for comfort level in greeting and conversation was also calculated to analyze the particular differences.

Satisfaction of Short-term Interactions

Four questions (Questions 35, 36, 39, 41) were adapted from the Interpersonal Communication Inventory (Hecht, 1978), and were employed to describe participants' conversational acts, to investigate the level of satisfaction with the short-term interactions at a campus recreation center. Satisfaction, according to Hecht (1978b), reflects participants' emotional reactions toward their interaction in terms of the degree it met or failed to meet their expectations. The more a participant's expectations are met in an interaction, the more the individual reports feeling satisfied. Participants indicated the degree of satisfaction regarding their interactions and experiences on a 7-point Likert-scale. This scale examines the overall satisfaction of interactions. Validity coefficient for the 16-item version of Hecht's Communication Satisfaction Inventory was .86. Coefficient alpha was used to assess the reliability of the satisfaction measure, resulting in a reliability of .72 (Hecht & Marston, 1987).

In this study, the communication satisfaction scale was adapted to investigate overall satisfaction of short-term interactions participants experienced at the campus recreation center. An additional four questions were created for the satisfaction scale. The additional four questions were synonymous with the four original questions adapted from Hecht's work. Questions 37, 38, and 40 were the negative voice from the original questions 35, 36, and 41; and further substituting word "value" and "content" for "enjoy" and "satisfies" in these new questions. Adding synonymous questions into the scale helped to enlarge the overall score and data spread, to increase variation of scores.

Question 42 related to participant's reactions of their interaction experiences, "I would like to have similar interaction experiences like what I had today at the CRC."

In this study, the sum of the eight questions was calculated to represent the satisfaction score of participant involvement in short-term interaction at the campus recreation center. Because questions 37, 38, and 40 were designed as negative questions, the sum score was calculated by using the reversed score from the original scale for these negative voice questions. (e.g., convert 1 to 7, 2 to 6, 7 to 1). The satisfaction score ranged from 8 to 56; the higher the score represented a greater the level of satisfaction regarding short-term interaction involvement at the campus recreation center.

Data Analysis Procedures

Survey data were entered into the Statistical Package for the Social Sciences (SPSS), Windows v. 16.0. Frequency distributions for each survey question were calculated. Descriptive statistics (Mean and SD) for each appropriate variable in this study are presented in Table 2 on page 92. Frequency distribution was first employed to demonstrate the background information of subjects. Pearson Correlations were applied to examine the relationships between variables. A series of ANOVAs were conducted to demonstrate significant differences between variables. Further, factorial ANOVAs were employed to investigate the significance of joint effects across variables (e.g., level of satisfaction). F-tests were employed to determine all tests of significance. The significance level in this study was selected to be less than or equal to 0.05.

Independent variables in this study were activity participation patterns (alone, with acquaintance, with friend, and with family), forms of activity participation (team activity, partnered activity, and individual activity), and self-construal tendencies

(Bicultural, Western, Traditional, and Culturally-Alienated). Variables "activity participation patterns" and "forms of activity participation" were generated from the questionnaire; and independent-interdependent tendencies of each subject were measured using the Self-Construal Scale (SCS; Singelis, 1994). Dependent variables included the level of comfort with involvement and satisfaction with involvement in short-term interactions (greeting and 2 to 3 minute conversation). Participant frequency of visiting the CRC was analyzed with all variables.

Research questions and data analysis procedures were as followed:

Research Question 1: Was there a significant relationship between participants' levels of comfort with involvement in short-term interactions and frequency of visits to a campus recreation center?

To test the first research question, a Pearson correlation analysis was conducted to determine if correlations existed between frequency of visiting and participants' levels of comfort with involvement in short-term interactions and frequency of visits to a campus recreation center.

Research Question 2: Was there a significant relationship between the level of satisfaction with short-term interactions and frequency of visits to a campus recreation center?

To test this research question, a Pearson correlation analysis was conducted to determine if a correlation existed between the frequency of visiting and participant satisfaction scores of short-term interactions at a campus recreation center.

Research Question 3: Was there a significant relationship between participants' independent-interdependent tendency scores, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center?

To test this research question, a Pearson correlation analysis was utilized to determine if correlations existed between participants' independent-interdependent tendencies scores, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center.

Research Question 4: Was there a significant difference among participants with different types of S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on frequency of visits to a campus recreation center?

To test this research question, a one-way ANOVA was employed to investigate the relationship among participants in four types of individualistic and collectivistic tendencies, and their frequency of visits to a campus recreation center. If the results of ANOVA indicated statistically significant differences between the means, Tukey HSD post hoc comparisons were employed to indicate the means that were different from each other.

Research Question 5: Was there a significant difference among participants with different types of S-C tendencies on the level of comfort with short-term interactions at a campus recreation center?

To test this research question, a one-way ANOVA was employed to investigate the relationship among participants with four different types of S-C tendencies on the level of comfort with short-term interactions at a campus recreation center. If the results of ANOVA indicated statistically significant differences between the means, Tukey HSD

post hoc comparisons were employed to indicate the means that were different from each other.

Research Question 6: Was there a significant difference among participants with different types of I-C tendencies on the level of satisfaction with a short-term interaction at a campus recreation center?

To test this research question, a one-way ANOVA was employed to investigate the relationship among participants in four types of self-construal tendencies, and the level of satisfaction involving short-term interaction at a campus recreation center. If the results of ANOVA indicated statistically significant differences between the means, Tukey HSD post hoc comparisons were employed to indicate the means that were different from each other.

Research Question 7: Did the level of comfort with involvement in short-term interaction at a campus recreation center significantly differ between different forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family)?

To test research question 7, a two-way (3 x 4) factorial ANOVA was manipulated to examine if the forms of activities and activity participation patterns combined to significantly impact participants' level of comfort involved in short-term interactions. The main effect of the forms of activities and the main effect of the activity participation patterns on the involvement of short-term interactions were addressed. The combined interaction between the forms of activities and the activity participation patterns to influence the level of comfort in involvement of short-term interactions were examined.

For the significant main effects, the Tukey HSD post-hoc analysis was performed to determine the specific sources of significance.

Research Question 8: Did the levels of satisfaction with involvement in short-term interactions at a campus recreation center significantly differ between forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family)?

To test research question 8, a two-way (3 x 4) ANOVA was manipulated to examine if the forms of activities and activity participation patterns combined to significantly impact participants' levels of satisfaction involved in short-term interactions. The main effect of the forms of activities and the main effect of the activity participation patterns on the involvement of short-term interactions were addressed. The combined interaction between the forms of activities and the activity participation patterns to influence the level of satisfaction with short-term interactions were examined. For any significant main effects, the Tukey HSD post-hoc analysis was performed to determine the specific sources of significance.

Research Question 9: Was there a significant relationship between the residency years of international students in the United States, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center?

To test this research question, a Pearson correlation analysis was utilized to determine if correlations existed between the residency years of international students in the United States, level of comfort, and level of satisfaction with involvement in short-term interactions at a campus recreation center.

CHAPTER IV

FINDINGS

This chapter reports the results of the statistical treatment of the data collected for this study. Data were collected from participants of the Colvin Recreation Center at Oklahoma State University, and were analyzed using the processes described in Chapter 3. Independent variables in this study included activity participation patterns (alone, with acquaintance, with friend, and with family), and forms of activity participation (team activity, partnered activity, and individual activity); independent-interdependent self-construal tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) of each subject were measured using the Self-Construal Scale (SCS; Singelis, 1994).

Level of comfort with involvement and satisfaction with involvement in short-term interactions (greeting and 2 to 3 minute conversation) were the dependent variables in this study. Participant frequency of visiting the CRC was analyzed with all variables. The quantitative data were analyzed using descriptive statistics, Pearson Correlation, one-way ANOVA, two-way ANOVA, and the Tukey HSD post-hoc analysis. The statistical approaches were selected for their suitability in examining the data in rejecting or failing to reject the null hypotheses. In an attempt to find a balance between the chances of a Type I and Type II error, a significance level of .05 was set as a minimum for rejecting the null hypotheses in this study.

Scale Reliability

The reliability coefficient for the Self-Construal Scale (SCS) was .73, whereas the independent self-construal subscale and interdependent self-construal subscale had reliability scores of .80 and .75, respectively. The reliability coefficient was .93 for the level of comfort with involvement in short-term interaction questions; the reliability coefficient was .83 for the level of comfort with greeting, and .90 for the level of comfort with involvement in a 2 to 3 minute conversation. The reliability for satisfaction with short-term interaction involvement was .79. Descriptive statistics (means, standard deviations, and range) of each scale in this study are shown in Table 2.

Table 2
Descriptive Statistics for Self-Construal Scale (Independent and Interdependent subscales), Involvement, and Satisfaction with short-term interaction (N= 256)

Scale	N of Items	Possible Range	Observed Range	Mean	SD
SCS	24	24 – 168	65 - 159	121.00	14.10
Independent Self	12	12 – 84	29 - 84	60.51	10.78
Interdependent Self	12	12 – 84	30 - 80	60.49	9.52
Short-term Interaction Involvement	18	18 – 126	18 - 109	54.26	17.27
Greeting	6	6 – 42	6 - 42	17.39	6.27
2 to 3 min conversation	12	12 -84	12 - 73	36.87	12.13
Satisfaction	8	8 – 56	26 - 56	44.47	7.43

Sample Characteristics

This section provides information regarding study participants' age, marital status, year of school, and racial/ethnic background. CRC participants were asked to participate in the research survey on their way toward the exit when they finished their visitation. A total of 493 participants were invited to participate in the survey. Two

hundred and sixty-nine participants agreed to participate. The response rate for the survey was 54.6 percent (269 responses out of 493). Thirteen surveys were scored as missing due to incomplete data. The missing data and incomplete data were eliminated from the analysis. Therefore, 256 participants were involved in the study analysis (the usable survey rate was 51.9 percent) of which 175 (68.4%) were male and 81 (31.6%) were female. Participants had attended OSU for 4.59 semesters on average.

The demographic information of participants is presented in Table 3 (on page 94). As can be seen, about 83% of the participants were under the age of 25. Thirty percent of participants were graduate students, compared to participants who were freshmen, sophomores, juniors, and seniors at 14.5%, 19.1%, 18.4% and 18.0%, respectively. Over 90% of participants were single and casual dating, and 8.2% were married/partnered. About 47% of the participants were classified as white/Caucasian and 34% were Asian, which combined for more than 80% of all participants. The remaining 19.2% subjects were Hispanic/Latino/Chicano, American Indian, African American, and others, such as Turkish.

Activity Participation Pattern

"With whom did you participate in activities at the CRC today?" was asked to determine participant activity participation pattern in this study. Four types of Activity Participation Patterns were involved in the study, including Alone, with Acquaintances, with Friends, and with Family. The results, which are not equally distributed among the four categories, are shown in Table 4 (on page 94). More than half of the subjects participated in activities with friends, approximately one-third participated alone, about one-tenth with acquaintances, and only 5.5% participated with a family member.

Table 3 Summary Table for Demographic Information (N = 256)

	N	Valid Percent
Sex		
Male	175	68.4%
Female	81	31.6%
Age		
Under 25	213	83.2%
Over 25	43	16.8%
Marital Status		
Single	197	77.0%
Married/Partnered	21	8.2%
Casual dating	38	14.8%
Year of School		
Freshman	37	14.5%
Sophomore	49	19.1%
Junior	47	18.4%
Senior	46	18.0%
Graduate student	77	30.1%
Racial/Ethnic Background		
White/Caucasian	120	46.9%
Asian	87	34.0%
Hispanic/Latino/Chicano	16	6.3%
American Indian	11	4.3%
African American	18	7.0%
Other	4	1.6%

Table 4
Summary Table for Participants' Activity Participation Pattern at CRC (N = 256)

	Frequency	Valid Percent
Alone	76	29.7
Acquaintances	25	9.8
Friends	141	55.1
Family	14	5.5
Total	256	100.0

Forms of Activity Participation

Participants were asked "In what type of activity did you primarily participate at the CRC today?" The three types of Activity Participation were Team activity (e.g., basketball, indoor soccer), Partnered activity (e.g., badminton, ping-pong), and Individual activity (e.g., weight lifting, running). Table 5 shows that the data are not equally distributed among the three categories. Nearly 60% of participants participated in Individual types of activity, slightly more than one-third of participants engaged in Team activities, and 7% participated in a Partnered activity.

Table 5
Summary Table for Participants' Forms of Activities at CRC (N = 256)

	Frequency	Valid Percent
Team activity	89	34.8
Partnered activity	18	7.0
Individual activity	149	58.2
Total	256	100.0

Self-Construal (S-C) Tendencies

The Self-Construal Scale (SCS; Singelis, 1994) was utilized to determine the participants' self-construal tendencies. The SCS consisted of 24 items, which is constituted by two subscales – Independent Self-Construal and Interdependent Self-Construal subscales. The Independent Self-Construal Participants were asked to indicate how much they agreed or disagreed with each statement on a 7-point Likert-type scale.

Twelve items on the independent self-construal subscale measured respondents' independent self-construals which reflected subjects' tendencies to view themselves as separate, unique, and bounded entities in relation to others. Another 12 items on the

interdependent self-construal subscale measured subjects' interdependent tendencies and were designed to reflect individuals' needs to be included and connected to others in social relationships and in-groups. Each participant received an independent score and an interdependent score averaged from each subscale. The greater scores indicated a stronger self-construal tendency in that domain. Participants were grouped into four groups representing the four types of self-construal tendencies based on median split strategy. This strategy was recommended by Kim et al. (1996) to place samples into four groups.

Participants who had independent scores higher than the median independent score (independent scale median score = 61) and interdependent scores higher than the median interdependent score (interdependent scale median score = 61) were assigned to the Bicultural group. Participants with independent scores higher than the median independent scale score and with interdependent scores lower than the median interdependent score were assigned to the Western group. Participants who were assigned to the Traditional group had independent scores lower than the median independent score and interdependent scores higher than the median interdependent score. The Culturally-Alienated group were participants with both independent scores and interdependent scores lower than median scores for each scale. Participants who had either score of independent and interdependent on the median were placed in a "Median Group" and excluded from the data analysis. The result of S-C tendency grouping in this study (presented in Table 6) is somewhat equal (23.4% of were categorized as Bicultural, 21.1% were Western, 20.3% were Traditional, and 24.6% were Culturally-Alienated).

Table 6
Frequency Distribution of Independent-Interdependent Tendency (N = 256)

	Frequency	Percent
Bicultural (HIHC)	60	23.4%
Western (HILC)	54	21.1%
Traditional (LIHC)	52	20.3%
Culturally-Alienated (LILC)	63	24.6%
Median Group (Excluded)	27	10.5%
Total	256	100%

The distribution of independent-interdependent tendencies among those of different ethnic/racial background is presented in Table 7. The results indicated that more than 60% of the White/Caucasian participants (66 participants out of 107) were categorized as having high independent self-construal tendencies (the Bicultural and the Western groups), compared to over 70% of the Asian subjects (58 participants out of 80) with high interdependent self-construal tendencies (the Traditional and the Culturally-Alienated group). One-fourth of the White/Caucasian participants were categorized in the Culturally-Alienated group. Further, American Indians were found to have a higher percentage (72.7 %) with high interdependent self-construal scores than Hispanic and African American groups, compared to over 70% higher independent self-construal scores (See Table 7).

Table 7
Independent-Interdependent Tendency with Ethnic/Racial Background

	White/Caucasian		Asian		Hispanic/Latino/ Chicano/Other		American Indian		African American	
	N	%	N	%	N	%	N	%	N	%
Bicultural	30	28.0	16	20.0	6	40.0	2	18.2	6	37.5
Western	36	33.6	6	7.5	4	26.7	1	9.1	7	43.8
Traditional	14	13.1	31	38.8	1	6.7	4	36.4	2	12.5
Culturally-Alienated	27	25.2	27	33.8	4	26.7	4	36.4	1	6.3
Total	107	100	80	100	15	100	11	100	16	100

Category “Other” includes 1 Turk and 1 Nigerian.

Frequency of Visiting the CRC

The frequency of visitation to the CRC for all participants was 3.74 times per week on average (SD = 1.64). When compared across S-C Tendency Groups, Western group participants visited the CRC most often at over four times a week (M= 4.07, SD = 1.68), and Traditional group participants visited the CRC the least often with 3.25 times per week (SD = 1.45) (See Table 8).

Table 8
Mean and Standard Deviation of Frequency (Times/week) of CRC visit by S-C Groups (N = 229)

	Mean	SD
All Participants	3.74	1.64
Bicultural	3.75	1.57
Western	4.07	1.68
Traditional	3.25	1.45
Culturally-Alienated	3.84	1.77

Level of Comfort with Involvement in Short-term Interactions

Participants in this study were asked to indicate their level of comfort in a greeting and short-term conversation situation on a 7-point Likert-scale. The comfort level with overall short-term interactions included all questions in both greeting and 2 to 3 minute conversation situations. When comparing the level of comfort with involvement in short-term interactions by S-C tendency groups (See Table 9), the comfort level with short-term interaction scores of the Culturally-Alienated group (M= 62.87, SD= 15.81) and the Traditional group participants (M= 56.21, SD= 13.03) were above the overall average mean score (M=53.62, SD= 17.34). The Western (M=49.52, SD= 17.15) and the Bicultural (M= 45.37, SD= 17.51) participants were below the mean score of all participants. Overall, participants who were categorized in the Bicultural group had the

lowest score in both level of comfort with greeting and 2 to 3 minute conversation at the CRC, followed by the Western group, the Traditional group, and the Culturally-Alienated group as being the most uncomfortable in both greeting and short conversation. The specific significant differences of the level of comfort with short-term interactions among S-C groups are analyzed in a later section in this chapter.

Table 9
Mean and Standard Deviation of Level of Comfort with Short-term Interactions by S-C Groups (N = 229)

	Short-term Interactions		Greeting		Conversation (2-3 min)	
	Mean	SD	Mean	SD	Mean	SD
All Participants	53.62	17.34	17.29	6.38	36.34	12.05
Bicultural	45.37	17.51	14.27	6.00	31.10	12.46
Western	49.52	17.15	16.13	6.44	33.39	11.92
Traditional	56.21	13.03	18.23	5.62	37.98	9.01
Culturally-Alienated	62.87	15.81	20.38	5.78	42.49	11.10

Satisfaction with Involvement in Short-term Interactions

The mean satisfaction score of involvement in a short-term interaction for all participants was 44.28 (SD= 7.45) (See Table 10). On average, the Culturally-Alienated group participants had the lowest satisfaction score (M= 40.70, SD= 7.46). The Traditional group participants had a satisfaction score (M= 43.44, SD= 6.42) lower than the mean satisfaction score of all participants. The Western group participants had the highest satisfaction score with short-term interactions at the CRC (M= 47.04, SD= 6.98); and the mean satisfaction score of the Bicultural group (M= 46.30, SD= 7.14) was greater than the overall mean score of all participants.

Table 10
Mean and Standard Deviation of Satisfaction with Interactions by S-C Groups (N = 229)

	Mean	SD
All Participants	44.28	7.45
Bicultural	46.30	7.14
Western	47.04	6.98
Traditional	43.44	6.42
Culturally-Alienated	40.70	7.46

Descriptive Analysis by S-C Tendencies

For analysis and comparison purposes, responses for all 7-point Likert scales have been collapsed into two categories – agree and disagree (Tables 11, 12, and 13). Table 14 shows that the responses for the 7-point Likert scale were collapsed into two categories – uncomfortable and comfortable. Neutral responses were not presented in the frequency distribution tables. The frequency distributions for each survey item are shown in Tables 11, 12, 13 and 14, and are grouped by participants' S-C tendencies. The numbers presented in Tables 11, 12, 13 and 14 are percentages of agree or disagree. These tables are presented for each subscale: Independent Self-Construal (Table 11), Interdependent Self-Construal (Table 12), Level of comfort with Involvement in Short-Term Interactions (Table 13), and Satisfaction of Involvement in Short-Term Interactions (Table 14).

Table 11

Frequency Distribution of Independent Self-Construal Items by S-C Tendency Groups (Percent - %) (N=229)

Independent Self-Construal Items	Agree				Disagree			
	Bicul	West	Trad	C-A	Bicul	West	Trad	C-A
Speaking up during a class is not a problem for me.	75.0	75.9	30.8	31.7	16.7	14.8	48.1	52.4
I prefer to be direct and forthright when dealing with people I've just met.	71.7	71.8	32.7	30.2	5.0	7.4	46.2	44.4
I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.	61.7	70.4	26.9	38.1	21.7	22.2	61.5	39.7
I enjoy being unique and different from others in many respects.	90.0	88.9	48.1	63.5	3.3	0	26.9	14.3
Being able to take care of myself is a primary concern for me.	93.3	92.6	76.9	63.5	1.7	3.7	11.5	14.3
I act the same way no matter who I am with.	80.0	85.2	30.8	27.0	11.7	3.7	53.8	54.0
I'd rather say "No" directly, than risk being misunderstood.	90.0	87.0	44.2	52.4	1.7	7.4	44.2	22.2
I am comfortable with being singled out for praise or rewards.	81.7	85.2	17.3	34.9	3.3	7.4	59.6	27.0
My personal identity, independent of others, is very important to me.	95.0	90.7	75.0	71.4	0	1.9	7.7	17.5
I am the same person at home that I am at school.	86.7	87.0	40.4	44.4	5.0	1.9	51.9	49.2
Having a lively imagination is important to me.	95.0	83.3	65.4	65.1	0	9.3	7.7	9.5
I value being in good health above everything else.	91.7	83.3	80.8	63.5	0	7.4	1.9	14.3

- Neutral responses are not presented in this table

Table 12

Frequency Distribution of Interdependent Self-Construal Subscale by S-C Tendency Groups (Percent - %) (N=229)

Interdependent Self-Construal Subscale	Agree				Disagree			
	Bicul	West	Trad	C-A	Bicul	West	Trad	C-A
I often have the feeling that my relationships with others are more important than my own accomplishments.	66.7	11.1	78.8	25.4	10.0	63.0	9.6	55.6
I will sacrifice my self-interests for the benefit of the group I am in.	85.0	27.8	82.7	42.9	5.0	51.9	11.5	34.9
I would offer my seat on a bus to one of my professors.	80.0	44.6	86.5	52.4	8.3	33.3	0	28.6
It is important for me to maintain harmony within my group.	96.7	77.8	96.2	76.6	1.7	7.4	0	4.8
It is important to me to respect decisions made by the group.	100.0	70.4	100.0	76.2	0	9.3	0	12.7
I should take into consideration my parents' advice when making education/career plans.	95.0	82.2	98.1	63.5	0	18.5	0	22.2
I have respect for authority figures with whom I interact.	100.0	81.5	98.1	82.5	0	1.9	0	9.5
I respect people who are modest about themselves.	95.0	83.3	90.4	74.6	0	3.7	1.9	6.3
My happiness depends on the happiness of those around me.	88.3	40.7	80.8	44.4	3.3	38.9	3.8	31.7
If my brother or sister fails, I feel responsible	66.7	27.8	61.5	38.1	18.3	44.4	21.2	42.9
Even when I strongly disagree with group members, I avoid an argument.	53.3	27.8	69.2	34.9	35.0	61.1	17.3	41.3
I will stay in a group if they need me, even when I'm not happy with the group.	71.7	35.2	80.8	42.9	18.3	51.9	7.7	38.1

- Neutral responses are not presented in this table

Table 13

Frequency Distribution of Level of Comfort with Involvement in Short-term Interactions by S-C Tendency Groups (Percent - %) (N=229)

	Uncomfortable				Comfortable			
	Bicul	West	Trad	C-A	Bicul	West	Trad	C-A
I greeted…								
People I knew before who are friends, and **I greeted** them first.	3.3	5.6	5.8	14.3	90.0	83.3	92.3	61.9
People I knew before who are friends, and **they greeted** me first.	5.0	7.4	3.8	7.9	83.3	87.0	90.4	60.3
People I knew before who are acquaintances, and **I greeted** them first.	1.7	14.8	9.6	15.9	86.7	68.5	78.8	57.1
People I knew before who are acquaintances, and **they greeted** me first.	3.3	11.1	9.6	14.3	80.0	70.4	67.3	55.6
People I didn't know before, and **I greeted** them first.	5.0	13.0	51.9	42.9	68.3	64.8	25.0	36.5
People I didn't know before, and **they** greeted me first.	10.0	13.0	36.5	27.0	66.7	64.8	36.5	46.0
I conversed with…								
People I came with who are friends. **I started** the conversation.	3.3	7.7	3.8	17.5	88.3	87.0	92.3	65.1
People I came with who are friends. **They started** the conversation.	5.0	5.6	9.6	12.7	86.7	87.0	80.8	71.4
People I came with who are acquaintances. **I started** the conversation.	3.3	3.7	7.7	17.5	78.3	79.6	82.7	57.1
People I came with who are acquaintances. **They started** the conversation.	5.0	1.9	11.5	12.7	83.3	79.6	75.0	54.0
People who did not come with me today who are friends. **I started** the conversation.	5.0	7.4	7.7	22.2	85.0	75.9	76.9	57.1
People who did not come with me today who are friends. **They started** the conversation.	10.0	13.0	3.8	22.2	78.3	75.9	78.8	60.3
People who did not come with me today who are acquaintances. **I started** the conversation.	5.0	13.0	17.3	11.1	80.0	70.4	59.6	46.0
People who did not come with me today who are acquaintances. **They started** the conversation.	6.7	9.3	17.3	20.6	78.3	74.1	67.3	52.4
People I didn't know before but I recreated with today. **I started** the conversation.	10.0	24.1	44.2	34.9	60.0	59.3	30.8	38.1
People I didn't know before but I recreated with today. **They started** the conversation.	18.3	16.7	30.8	36.5	55.0	64.8	36.5	36.5
People I didn't know before and I did not recreate with today (but I saw them in the building). **I started** the conversation.	15.0	24.1	51.9	47.6	56.7	46.3	23.1	31.7
People I didn't know before and I didn't recreate with today (but I saw them in the building). **They started** the conversation.	20.0	22.2	42.3	36.5	53.3	40.7	21.2	33.3

- Neutral responses are not presented in this table

Table 14

Frequency Distribution of Satisfaction with Short-term Interactions by S-C Tendency Groups (Percent - %) (N=229)

	Agree				Disagree			
	Bicul	West	Trad	C-A	Bicul	West	Trad	C-A
I was very satisfied with my experience today at the recreation center.	96.7	92.6	92.3	81.0	3.3	5.6	3.8	9.5
I enjoyed the interactions I had at the recreation center today.	91.7	92.6	82.7	73.0	0	1.9	9.6	6.3
I appreciate my experience today at the recreation center.	85.0	98.1	88.5	69.8	6.7	1.9	5.8	20.6
I was very content with the interactions I had at the recreation center today.	73.3	85.2	80.8	60.3	16.7	9.3	5.8	20.6
The interactions I had influenced my experiences at the recreation center.	58.3	44.4	40.4	36.5	21.7	20.4	23.1	25.4
I did value the interactions I had at recreation center today.	75.0	88.9	82.7	58.7	13.3	5.6	7.7	15.9
I was very satisfied with the interactions I had at the recreation center today.	85.0	88.9	71.2	73.0	1.7	9.3	9.6	12.7
I would like to have similar interaction experiences like what I had today at the recreation center.	80.0	83.3	71.2	65.1	8.3	5.6	7.7	14.3

- Neutral responses are not presented in this table

Independent Self-Construal

Tables 11 (on page 100) and 15 (on page 106) present descriptive information for each item in the Independent Self-Construal subscale by different types of S-C tendency groups. The frequency distribution of agreement/disagreement with each Independent Self-Construal item by each type of S-C tendency group was shown in Table 11. The overall and group means, and standard deviations of each independent subscale item are reported in Table 15. The higher the mean scores, the greater the independent self-construal.

Overall, the mean and percentage of agreement for the Independent Self-Construal item of the Bicultural and the Western groups is greater than those in the Traditional and the Culturally-Alienated groups (See Tables 11 and 15). For all participants the results show that the item, "Being able to take care of myself is a primary concern for me" has the largest mean score (M= 5.63, SD= 1.33). Over 90% of people from the Bicultural and the Western groups agreed with the statement; over 75% of the Traditional group and nearly 65% of the Cultural-Alienated group also agreed. This was followed by the item, "My personal identity, independent of others, is very important to me" (M=5.56, SD= 1.28) and "I value being in good health above everything else" (M= 5.50, SD= 1.32) which demonstrate relative greater means than other items. More than 90% of participants in both the Bicultural and the Western groups agreed, while over 70% of subjects in both the Tradition and the Culturally-Alienated groups agreed that having personal identity is very important. Over 90% of those in the Bicultural group, 83.3% of the Western group, 80.8% of the Traditional group, and 63.5% of those in the

Culturally-Alienated group agreed about the value of good health above everything (Table 11).

The smallest mean score for all participants on the Independent subscale was, “I feel comfortable using someone’s first name soon after I meet them, even when they are much older than I am” (M= 4.30, SD= 1.86), followed by, “Speaking up during a class is not a problem for me” (M= 4.52, SD= 1.92), “I prefer to be direct and forthright when dealing with people I’ve just met” (M= 4.59, SD= 1.68), and “I act the same way no matter who I am with” (M= 4.60, SD= 1.95) (Table 15).

As presented in Table 11, over 60% of the Traditional group and nearly 40% of the Culturally-Alienated group disagreed about feeling comfortable using someone’s first name soon after meeting them. This compared to over 60% of the Bicultural group and 70% of the Western group who expressed comfort. About 60% of the Traditional group felt uncomfortable being singled out for praise or rewards, whereas the Bicultural and the Western groups had over 80% of respondents who felt comfortable. Approximately one half of both the Traditional and the Culturally-Alienated groups disagreed on “Speaking up during a class is not a problem for me”, “I prefer to be direct and forthright when dealing with people I’ve just met”, “I act the same way no matter who I am with”, and “I am the same person at home that I am at school”, compared to the majority of those in the Bicultural and the Western groups, who agreed with these statements.

Table 15

Means and Standard Deviation of Independent Self-Construal Items by S-C Tendency Groups (N=229)

Independent Self-Construal Items	All Participants		Bicultural		Western		Traditional		Culturally-Alienated	
	M	SD	M	SD	M	SD	M	SD	M	SD
Speaking up during a class is not a problem for me.	4.52	1.92	5.38	1.76	5.48	1.60	3.65	1.63	3.57	1.80
I prefer to be direct and forthright when dealing with people I've just met.	4.59	1.68	5.40	1.32	5.59	1.30	3.52	1.60	3.84	1.45
I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.	4.30	1.86	4.78	1.69	5.07	1.78	3.27	1.86	4.03	1.68
I enjoy being unique and different from others in many respects.	5.38	1.40	6.02	1.07	6.15	1.02	4.54	1.46	4.81	1.31
Being able to take care of myself is a primary concern for me.	5.63	1.33	6.15	0.95	6.24	1.23	5.19	1.14	4.97	1.46
I act the same way no matter who I am with.	4.60	1.95	5.38	1.66	6.07	1.18	3.44	1.82	3.56	1.65
I'd rather say "No" directly, than risk being misunderstood.	5.10	1.58	5.98	1.00	5.83	1.18	3.88	1.70	4.63	1.41
I am comfortable with being singled out for praise or rewards.	4.78	1.78	5.83	1.17	5.76	1.41	3.15	1.54	4.29	1.51
My personal identity, independent of others, is very important to me.	5.56	1.28	6.12	0.87	5.94	1.17	5.21	1.23	4.98	1.41
I am the same person at home that I am at school.	4.88	1.96	5.83	1.38	6.06	1.25	3.77	1.96	3.89	1.92
Having a lively imagination is important to me.	5.48	1.37	6.13	0.89	5.63	1.38	5.02	1.29	5.13	1.54
I value being in good health above everything else.	5.50	1.32	6.00	0.96	5.61	1.42	5.58	1.09	4.87	1.47

- 7-point Likert scale

Interdependent Self-Construal

Tables 12 (on page 101) and 16 (on page 109) show descriptive information for each item of the Interdependent Self-Construal subscale by the four types of S-C tendency groups. The frequency distribution of agreement/disagreement for each Interdependent Self-Construal items by each type of S-C tendency groups are shown in Table 12. Table 16 presents the overall and group means, and standard deviations of each independent subscale item. The greater means in Table 16 indicate a higher level of participants' interdependent self-construal.

For all participants, items "I respect people who are modest about themselves" (M= 5.93, SD= 1.12), "I have respect for authority figures with whom I interact" (M= 5.92, SD= 1.16), "It is important for me to maintain harmony within my group" (M= 5.79, SD= 1.19), "It is important for me to respect decisions made by the group" (M= 5.69, SD= 1.18), and "I should take into consideration my parents' advice when making education/career plans" (M= 5.50, SD= 1.48) were shown to have relatively greater mean scores (means over 5.5 on a 7-point scale) (See Table 15) and very high percentages of agreement for all types of S-C tendency groups (See Table 11). For these five items plus the item "I would offer my seat on a bus to one of my professors" (M= 5.09, SD= 1.84) and "My happiness depends on the happiness of those around me" (M= 4.80, SD= 1.60), the percentages of agreement for the Western group were higher than disagreement (See Table 11). This was true although participants of the Western group were considered to have lower Interdependent Self-Construal tendency.

For the rest of the items on the Interdependent Self-Construal Scale, the Western group had a higher percentage of disagreement than agreement. Sixty-three percent of the

Western group and more than 55% of the Culturally-Alienated group disagreed with the item, “I often have the feeling that my relationships with others are more important than my own accomplishments” when compared to approximately 10% of those in the Bicultural and Traditional groups.

More than 80% of participants in the Bicultural and Traditional groups agreed on, “I will sacrifice my self-interests for the benefit of the group I am in”, whereas more than 50% of participants in the Western group disagreed. Over 60 percent of participants in the Western group disagreed on, “Even when I strongly disagree with group members, I avoid an argument” compared to 35% of those in the Bicultural group and 17.3% of the Traditional group. Further, 51.9% of those in the Western group disagreed on, “I will stay in a group if they need me, even when I’m not happy with the group”, whereas 18.3% of the Bicultural and 7.7% of the Traditional groups disagree. However, the percentages between agree and disagree were somewhat even on these items for the Cultural-Alienated group.

Table 16

Means and Standard Deviation of Interdependent Self-Construal Items by S-C Tendency Groups (N=229)

Interdependent Self-Construal Items	All Participants		Bicultural		Western		Traditional		Culturally-Alienated	
	M	SD	M	SD	M	SD	M	SD	M	SD
I often have the feeling that my relationships with others are more important than my own accomplishments.	4.10	1.68	4.93	1.40	2.89	1.45	5.15	1.26	3.48	1.47
I will sacrifice my self-interests for the benefit of the group I am in.	4.61	1.66	5.53	1.26	3.34	1.60	5.40	1.23	4.08	1.55
I would offer my seat on a bus to one of my professors.	5.09	1.84	5.62	1.47	4.20	2.11	6.25	1.06	4.40	1.76
It is important for me to maintain harmony within my group.	5.79	1.19	6.37	0.90	5.31	1.29	6.27	0.77	5.24	1.24
It is important to me to respect decisions made by the group.	5.69	1.18	6.33	0.66	5.24	1.27	6.27	0.63	4.97	1.27
I should take into consideration my parents' advice when making education/career plans.	5.50	1.48	6.08	0.93	5.02	1.75	6.19	0.77	4.79	1.63
I have respect for authority figures with whom I interact.	5.92	1.16	6.50	0.68	5.72	1.24	6.27	0.77	5.25	1.33
I respect people who are modest about themselves.	5.93	1.12	6.48	0.81	5.83	1.13	6.06	0.96	5.37	1.21
My happiness depends on the happiness of those around me.	4.80	1.60	5.67	1.16	3.81	1.74	5.44	1.00	4.30	1.57
If my brother or sister fails, I feel responsible	4.38	1.90	5.03	1.76	3.54	1.48	5.00	1.86	3.95	1.87
Even when I strongly disagree with group members, I avoid an argument.	4.08	1.93	4.42	1.85	3.19	1.88	5.02	1.52	3.76	1.58
I will stay in a group if they need me, even when I'm not happy with the group.	4.49	1.69	5.25	1.50	3.52	1.70	5.19	1.30	4.02	1.57

- 7-point Likert scale

Level of Comfort with Involvement in Short-Term Interactions

Tables 13 (on the page 102) and 17 (on the page 113) present descriptive information for each item regarding the level of comfort with involvement in short-term interactions. Table 13 shows the frequency distribution of nervousness and comfort for each situation of greeting and 2 to 3 minute conversations at the CRC. Table 17 reports the means and standard deviations of all participants and each S-C group for each short-term interaction situation. The higher the mean scores on the level of comfort scale, the more nervousness participants experienced when involved in greeting and short-term conversations.

Overall, the results indicate that no matter who greeted whom first, subjects felt the most nervous when greeting Strangers (I greeted: M= 3.62, SD= 1.60; They greeted: M= 3.41, SD= 1.54). This was followed by greeting Acquaintances (I greeted: M= 2.80, SE= 1.35; They greeted: M= 2.79, SD= 1.34), and participants experiences the least nervousness with Friends (I greeted: M= 2.33, SD= 1.43; They greeted: M= 2.34, SD= 1.29).

For level of comfort with involvement in a 2 to 3 minute conversation, subjects felt the most nervous with Strangers with whom they did not recreate, no matter who started the conversation (I started: M= 3.84, SD= 1.59; They started: M= 3.82, SD= 1.61). This was followed by (from the most nervous to the least nervous) with Strangers I recreated with (I started: M= 3.65, SD= 1.55; They started: M= 3.59, SD= 1.54), with Acquaintance (not came with) (I started: M= 3.09, SD= 1.44; They started: M= 2.96, SD= 1.38), with friends (not came with) (I started: M= 2.72, SD= 1.42; They started: M= 2.75, SD= 1.45), with Acquaintances I came with (I started: M= 2.68, SD= 1.29; They

started: M= 2.71, SD= 1.30), and with Friends I came with (I started: M= 2.24, SD= 1.35; They started: M= 2.28, SD= 1.38).

When compared among four different types of the S-C tendency groups, subjects in the Culturally-Alienated group were the most nervous no matter who greeted whom first (I greeted: M= 3.02, SD= 1.51; They greeted: M= 2.81, SD= 1.32). They were followed by the Western group (I greeted: M= 2.19, SD= 1.43; They greeted: M= 2.30, SD= 1.25), the Traditional group (I greeted: M= 2.06, SD= 1.36; They greeted: M= 2.12, SD= 1.18), and the least nervous Bicultural group (I greeted: M= 1.97, SD= 1.16; They greeted: M= 2.07, SD=1.26). Further, the level of comfort with involvement in greeting strangers, subjects in the Culturally-Alienated group and the Traditional group (I greeted: M= 4.42, SD= 1.36; They greeted: M= 4.08, SD= 1.44) were the most nervous (I greeted: M= 4.16, SD= 1.49; They greeted: M= 3.76, SD= 1.57), compared to the Western group (I greeted: M= 3.09, SD= 1.47) and the Bicultural group (I greeted: M= 2.83, SD= 1.49; They greeted: M= 2.83, SD= 1.52).

Further, individuals in the C-A group had the lowest level of comfort with short-term conversations with acquaintances; individuals in the Traditional group had the lowest level of comfort when in conversation with strangers. Subjects in the Bicultural group had the greatest level of comfort with their involvement in short-term conversations with acquaintances and strangers.

Comparing the mean scores of each involvement item, those in the Culturally-Alienated group had each mean score of “I first/I started” greater than “They first/they started” on each category (only one exception item on “People I didn’t know before but I

recreated with today…"). Members of the Bicultural group had the lowest mean scores on each of these items indicating that they were less nervous with short-term interactions.

Satisfaction with Involvement in Short-Term Interactions

Subjects in the C-A group had the smallest mean scores on each item of the satisfaction scale, followed by the Traditional group (Table 18 on page 114). The higher the mean scores for level of satisfaction, the more satisfaction participants experienced when involved in the greeting and short-term conversation.

"The interactions I had influenced my experiences at the recreation center today" had the smallest mean score (M= 4.46, SD= 1.71). About 60% of the Bicultural group agreed with this statement; around 40% of the rest groups agreed. However, on average 20 to 25% disagreed with this statement, including the Bicultural group.

Table 17

Means and Standard Deviation of the Level of Comfort with Involvement in Short-Term Interactions by S-C Tendency Groups (N=229)

	All Participants		Bicultural		Western		Traditional		Culturally-Alienated	
	M	SD	M	SD	M	SD	M	SD	M	SD
Involvement in greeting people										
People I knew before who are friends, and **I greeted** them first.	2.33	1.43	1.97	1.16	2.19	1.43	2.06	1.36	3.02	1.51
People I knew before who are friends, and **they greeted** me first.	2.34	1.29	2.07	1.26	2.30	1.25	2.12	1.18	2.81	1.32
People I knew before who are acquaintances, and **I greeted** them first.	2.80	1.35	2.22	1.11	2.81	1.48	2.73	1.32	3.40	1.25
People I knew before who are acquaintances, and **they greeted** me first.	2.79	1.34	2.35	1.21	2.72	1.46	2.83	1.34	3.24	1.24
People I didn't know before, and **I greeted** them first.	3.62	1.60	2.83	1.49	3.09	1.47	4.42	1.36	4.16	1.49
People I didn't know before, and **they** greeted me first.	3.41	1.54	2.83	1.52	3.02	1.27	4.08	1.44	3.76	1.57
Involvement in conversation lasting at least 2 to 3 minutes										
People I came with who are friends. **I started** the conversation.	2.24	1.35	1.92	1.17	1.96	1.12	1.94	1.00	3.02	1.64
People I came with who are friends. **They started** the conversation.	2.28	1.38	2.07	1.35	2.04	1.30	2.19	1.40	2.78	1.36
People I came with who are acquaintances. **I started** the conversation.	2.68	1.29	2.35	1.26	2.37	1.14	2.60	1.21	3.33	1.31
People I came with who are acquaintances. **They started** the conversation.	2.71	1.30	2.30	1.29	2.35	1.08	2.87	1.28	3.27	1.30
People who did not come with me today who are friends. **I started** the conversation.	2.72	1.42	2.12	1.17	2.61	1.32	2.58	1.29	3.51	1.50
People who did not come with me today who are friends. **They started** the conversation.	2.75	1.45	2.50	1.62	2.70	1.34	2.46	1.13	3.27	1.48
People who did not come with me today who are acquaintances. **I started** the conversation.	3.09	1.44	2.55	1.32	2.91	1.36	3.31	1.32	3.59	1.54
People who did not come with me today who are acquaintances. **They started** the conversation.	2.96	1.38	2.60	1.37	2.74	1.32	3.08	1.20	3.38	1.36
People I didn't know before but I recreated with today. **I started** the conversation.	3.65	1.55	3.10	1.55	3.39	1.55	4.21	1.39	3.94	1.49
People I didn't know before but I recreated with today. **They started** the conversation.	3.59	1.54	3.22	1.62	3.17	1.48	3.88	1.37	4.08	1.47
People I didn't know before and I did not recreate with today (but I saw them in the building). **I started** the conversation.	3.84	1.59	3.12	1.50	3.52	1.53	4.56	1.51	4.22	1.46
People I didn't know before and I didn't recreate with today (but I saw them in the building). **They started** the conversation.	3.82	1.61	3.27	1.74	3.63	1.53	4.31	1.54	4.11	1.45

- 7-point Likert scale

Table 18

Means and Standard Deviation of Satisfaction with Short-Term Interaction by S-C Tendency Groups (N=229)

	All Participants		Bicultural		Western		Traditional		Culturally-Alienated	
	M	SD	M	SD	M	SD	M	SD	M	SD
I was very satisfied with my experience today at the recreation center.	6.0	1.30	6.38	0.99	6.19	1.42	5.94	1.18	5.51	1.40
I enjoyed the interactions I had at the recreation center today.	5.87	1.24	6.25	0.95	6.13	1.10	5.69	1.23	5.43	1.45
I did appreciate my experience today at the recreation center.	5.91	1.44	6.08	1.47	6.54	0.99	5.79	1.26	5.32	1.64
I was very content with the interactions I had at the recreation center today.	5.54	1.68	5.60	1.94	5.94	1.64	5.58	1.27	5.10	1.67
The interactions I had influenced my experiences at the recreation center.	4.46	1.71	4.68	1.81	4.56	1.83	4.38	1.72	4.22	1.48
I did value the interactions I had at recreation center today.	5.52	1.57	5.57	1.79	6.11	1.27	5.46	1.28	5.03	1.68
I was very satisfied with the interactions I had at the recreation center today.	5.54	1.37	5.97	1.09	5.76	1.58	5.29	1.36	5.14	1.29
I would like to have similar interaction experiences like what I had today at the recreation center.	5.45	1.46	5.77	1.42	5.81	1.53	5.31	1.18	4.95	1.52

- 7-point Likert scale

Tests of Hypotheses

Hypothesis 1: There was no significant relationship between participants' levels of comfort with involvement in short-term interactions and frequency of visit to a campus recreation center.

The first hypothesis was to examine the relationships between frequency of visit to a campus recreation center and participants' levels of comfort with involvement in a short-term interaction. As mentioned, the short-term interaction in this study was connected to greeting and a 2 to 3 minute conversation while at a campus recreation center. The level of comfort with involvement in greeting, the level of comfort with involvement in a 2 to 3 minute conversation, and the overall scores of level of comfort with short-term interaction involvement (combining scores of greeting and conversation) were all tested to investigate the relationships with visiting frequency. A Pearson correlation was employed to examine the associations among the overall level of comfort with short-term interactions (M= 54.25, SD= 17.27), level of comfort with greeting (M= 17.39, SD= 6.27), level of comfort with conversation (M= 36.87, SD= 12.13), and frequency of CRC visitation (M= 3.78, SE= 1.63) (See Table 19 on page 118).

Using an alpha level of .05, Pearson correlation coefficients indicated that frequency of visit to the recreation center negatively and significantly correlated with level of comfort with overall scores in short-term interactions ($r(256)= -.141$, $p \leqq .05$) and scores of level of comfort in a 2 to 3 minute conversation ($r(256) = -.145$, $p \leqq .05$). The more a participant visited the recreation center, the less nervousness he/she experienced in short-term interactions. Although relationships were found between

frequency of visiting and level of comfort with conversation, the correlation coefficients are very small. Overall, the Hypothesis 1 was rejected.

Table 19
Correlations among Frequency, Overall Level of Comfort with Interactions, Level of Comfort with Greeting, Comfort with Conversation, and Satisfaction in Short-term Interaction (N = 256)

	Comfort with Interactions	Greet	Conversation	Satisfaction
Frequency of CRC Visiting	-.141*	-.106	-.145*	.266**
Comfort with Interactions		.879**	.969**	-.442**
Greet			.735**	-.404**
Conversation (2-3 mins)				-.421**

* Correlation is significant at p ≦0.05 level
** Correlation is significant at p ≦ 0.01 level

Hypothesis 2: There was no significant relationship between the level of satisfaction with short-term interaction and frequency of visit to a campus recreation center.

The second hypothesis was to investigate whether the frequency of visit to a campus recreation center had any association with the level of satisfaction in involvement in short-term interaction experiences. A Pearson correlation addressed the relationship between the frequency of visit to a campus recreation center (M = 3.78, SD = 1.63) and the level of satisfaction with short-term interaction (M = 44.47, SD = 7.43).

Using an alpha level of .05, the Pearson Correlation coefficient showed that the frequency of campus recreation center visitation is positively and significantly correlated with satisfaction in short-term interactions (r (256)= .266, p< .01) (see Table 19); the association is quite small. The more frequently participants visited the campus recreation center, the more satisfied they were with involvement in short-term interactions at the campus recreation center. Thus, Hypothesis 2 was rejected.

Hypothesis 3: There was no significant relationship between participants' Independent-Interdependent tendency scores, level of comfort, and level of satisfaction in short-term interactions at a campus recreation center.

The third hypothesis of this study was to determine whether any significant relationship existed among all quantitative variables. To test this hypothesis, Pearson Correlations were performed to address the intercorrelation among Independent self-construal (M = 60.51, SD = 10.783), Interdependent self-construal (M = 60.49, SD = 9.521), overall level of comfort with involvement in short-term interactions (M = 54.26, SD = 17.266), level of comfort with greeting (M = 17.39, SD = 6.269), level of comfort with conversation (M = 36.87, SD = 12.128), and satisfaction of involvement in short-term interactions (M = 44.47, SD = 7.426). The results of the relationships among variables are presented in Table 20 (on page 122).

As presented in Table 20, the relationship between Independent self and Interdependent self was found to be statistically non-significant ($r(256) = -.039$, ns). The Independent self negatively correlated to level of comfort with overall short-term interactions ($r(256)= -.473$, $p \leqq .05$), level of comfort with greeting ($r(256)= -.461$, $p<.01$), and level of comfort with conversation ($r(256)= -.436$, $p \leqq .05$). Further, there was a significantly positive relationship between the Independent-self and satisfaction with short-term interaction ($r(256)=.404$, $p \leqq .05$).

Interdependent Self was found negatively correlated to level of comfort with short-term interactions ($r(256)= -.193$, $p < .01$), level of comfort with greeting ($r(256)= -.179$, $p \leqq .05$), and level of comfort with conversation ($r(256)= -.183$, $p \leqq .05$).

Moreover, Interdependent-self had no significant association with satisfaction with short-term interaction ($r(256) = .104$, ns).

Overall level of comfort with involvement in short-term interactions was summed from the level of comfort with greeting and the level of comfort with conversation. It was not surprising to have high associations among these three variables ($r(256) = .879, .969$, $p \leqq .05$). However, the level of comfort with involvement in short-term interactions was not significantly correlated to satisfaction ($r(256) = -.442$, ns). Negative associations were found between level of comfort with greeting and satisfaction ($r(256) = -.404$, $p < .01$), and between level of comfort with conversation and satisfaction ($r(256) = -.421$, $p < .01$).

Results indicated that there was no significant connection between two Self-Construal subscales - Independent and Interdependent. Independent Self had significantly negative association with the level of comfort, and both greeting and conversation, at a moderate degree. This means that participants with higher independent self-construals experienced a lower level of comfort with short-term interactions at a campus recreation center than those with lower independent scores. Further, the higher the independent self-construal score a participant had, the more satisfied he/she was when involved in short-term interactions at a campus recreation center.

Results also indicated that slightly negative associations exist between the Interdependent-self and the level of comfort with involvement in short-term interactions. Further, there was no significant relationship between the Interdependent-self and satisfaction of involvement in short-term interactions.

The level of comfort with involvement in short-term interactions was not significantly associated with satisfaction of participants' involvement in short-term

interactions. However, significantly negative relationships were found between the level of comfort with greeting and satisfaction, and between the level of comfort with conversation and satisfaction, to a moderate degree. As a result, the more nervousness participants feel in short-term interactions at a campus recreation center, the less satisfaction they were. Thus, Hypothesis 3 was rejected.

Hypothesis 4: There was no significant difference among participants with different S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on frequency of visit to a campus recreation center.

The fourth hypothesis was to determine if significant differences of frequency of visit to a campus recreation center existed among the four different S-C tendencies. To test this hypothesis, a one-way between-subjects analysis of variance (ANOVA) was manipulated to determine whether a significant difference in mean scores on frequency (as the dependent variable) among S-C tendencies (as the independent variable) existed. The results of this test are shown in Table 21 (on page 122).

The results of the one-way ANOVA test found no statistically significant effect of frequency of CRC visitation among the four different types of S-C tendencies, $F(3, 225) = 2.407$, $p = 0.068$. The researcher failed to reject Hypothesis 4.

Table 20

Correlations among Independent-Interdependent Scores, Level of Comfort with Short-term Interactions, Level of Comfort with Greeting and Conversation, and Satisfaction (N = 256)

	Independent Self	Interdependent Self	Short-term interactions	Greeting	Conversation
			N = 256		
Interdependent Self	-.039				
Short-term interactions	-.473**	-.193**			
Greeting	-.461**	-.179**	.879**		
Conversation	-.436**	-.183**	.969**	.735**	
Satisfaction	.404**	.104	-.442**	-.404**	-.421**

** Significant at p < .01

Table 21

One-way Analysis of Variance Source Table for the S-C Tendencies on Frequency of Visiting CRC (N = 229)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.163	3	6.388	2.407	.068
Within Groups	597.116	225	2.654		
Total	616.279	228			

Hypothesis 5: There was no significant difference among participants with different types S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on the level of comfort with short-term interactions at a campus recreation center.

The fifth hypothesis was to determine if significant differences of level of comfort with short-term interactions at a campus recreation center existed among the four types of participants' S-C tendencies. To test this hypothesis, a one-way analysis of variance (ANOVA) was employed to determine whether a significant difference in mean scores on the level of comfort with involvement in short-term interactions among the types of S-C tendencies existed. Significant main effects were found; thus a Tukey HSD post-hoc analysis was conducted to determine the specific source of significance. The results of this one-way ANOVA and Tukey HSD post-hoc analysis are shown in Table 22 and Table 23.

Table 22
One-way Analysis of Variance Source Table for the S-C Tendencies on the Level of Comfort with Short-Term Interactions (N = 229)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10738.631	3	3579.544	13.928*	.000
Within Groups	57827.072	225	257.009		
Total	68565.703	228			

* Significant at the .05 level.

Table 23
Post-hoc Comparison of the S-C Tendencies on the Level of Comfort with Short-Term Interaction

S-C Tendency (I)	S-C Tendency (J)	Mean Difference (I-J)	Std. Error	Sig.
Bicultural	Western	-4.152	3.007	.513
	Traditional	-10.845*	3.037	.002
	Culturally-Alienated	-17.506*	2.892	.000
Western	Traditional	-6.693	3.115	.141
	Culturally-Alienated	-13.354*	2.973	.000
Traditional	Culturally-Alienated	-6.661	3.004	.122

* The mean difference is significant at the .05 level.

As presented in Table 22, the results of the one-way ANOVA analysis demonstrate statistical significance ($F(3, 225) = 13.928$, $p = 0.00$) among the means of the level of comfort with involvement in short-term interactions and different types of S-C tendencies. Thus, the null hypothesis was rejected.

To identify the difference in means on the level of comfort with involvement in short-term interaction among the four different types of S-C tendencies, a Tukey HSD post-hoc analysis was manipulated. The results of the Tukey HSD post-hoc test are presented in Table 23. The results indicated that the Bicultural group had a significant mean difference for the level of comfort with involvement in short-term interactions compared to the Traditional group (Mean Difference = -10.845, $p < .05$) and the Culturally-Alienated group (Mean Difference = -17.506, $p < .05$). Participants in the Bicultural group were significantly more comfortable with involvement in short-term interactions than those in the Traditional group and the Culturally-Alienated group. No significant difference of the level of comfort with involvement in short-term interactions was found between the Bicultural and the Western groups (Mean Difference= -4.152, ns).

Moreover, a significant mean difference for the level of comfort with involvement in short-term interactions was found between the Western group and the Culturally-Alienated group (Mean Difference= -13.354, $p < .05$). No significant mean difference for the level of comfort with involvement in short-term interactions was found between the Western and the Traditional groups (Mean Difference= -6.693, ns), or between the Traditional and the Culturally-Alienated groups (Mean Difference= -6.661, ns).

Hypothesis 6: There was no significant difference among participants with different types of S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on the level of satisfaction involving in short-term interaction at a campus recreation center. This hypothesis was to determine whether there was any significant difference of participants' level of satisfaction when involved in a short-term interaction at a campus recreation center among the four types of S-C tendencies. To test this hypothesis, a one-way ANOVA was conducted to determine whether a significant difference in mean scores of satisfaction existed among the S-C tendencies. Then significant main effects were found, a Tukey HSD post-hoc analysis was utilized to determine specific sources of difference within groups. The results of the one-way ANOVA and Tukey HSD post-hoc analysis are resented in Table 24 and Table 25.

Table 24

One-way Analysis of Variance Source Table for the S-C Tendencies on Satisfaction with Short-Term Interaction (N = 229)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1499.928	3	499.976	10.090*	< 0.05
Within Groups	11148.623	225	49.549		
Total	12648.550	228			

* Significant at the .05 level.

Table 25

Post-hoc Comparison of the S-C Tendencies on Satisfaction with Short-Term Interaction

S-C Tendency (I)	S-C Tendency (J)	Mean Difference (I-J)	Std. Error	Sig.
Bicultural	Western	-.737	1.320	.944
	Traditional	2.858	1.334	.143
	Culturally-Alienated	5.602*	1.270	< .005
Western	Traditional	3.595*	1.368	.045
	Culturally-Alienated	6.339*	1.305	< .005
Traditional	Culturally-Alienated	2.744	1.319	.163

* The mean difference is significant at the .05 level.

The result of the one-way ANOVA test indicated statistical significance ($F(3, 225) = 10.090$, $p < 0.05$) among the means of the satisfaction scores for the different types of S-C tendencies. Thus, the null hypothesis was rejected (Table 24).

A Tukey HSD post-hoc analysis was conducted to identify the specific difference among means for level of satisfaction among the four types of S-C tendencies. The results of the post-hoc comparisons are presented in Table 25. The Bicultural group was significant different than the Culturally-alienated group (Mean Difference = 5.602, $p < .05$) as satisfaction scores. No significant difference for level of satisfaction was found between the Bicultural and the Western groups (Mean Difference= -.737, ns), or between the Bicultural and Traditional groups (Mean Difference= 2.858, ns).

The Western group was significant different than the Traditional group (Mean Difference= 3.595, $p < .05$), and the Culturally-Alienated group on satisfaction scores (Mean Difference= 6.339, $P < .05$). No significant mean difference of satisfaction scores existed between the Traditional and Culturally-Alienated groups (Mean Difference= 2.744, ns).

Hypothesis 7: The level of comfort with involvement in short-term interactions at a campus recreation center did not significantly differ between different forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family).

This hypothesis was designed to examine if participants' level of comfort with involvement in short-term interactions at a campus recreation center significantly differed between different forms of activity participation and different activity participation patterns. To test this hypothesis, a two-way factorial ANOVA was manipulated to determine whether any interaction effects for forms of activities and activity participation patterns on the level of comfort with involvement in short-term interactions. The result of the two-way ANOVA is presented in Table 26.

Table 26
Two-Way Analysis of Variance Source Table for Forms of Activity Participation and Activity Participation Patterns on Level of Comfort with Involvement in Short-term Interactions (N= 256)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Forms_of_activity	531.717	2	265.859	.887	.413
Participation_pattern	2028.143	3	676.048	2.255	.083
Forms_of_activity * Participation_pattern	968.533	4	242.133	.808	.521
Error	73740.714	246	299.759		
Total	829773.000	256			

The interaction effect of the forms of activity participation and activity participation patterns had an overall F (4, 246) = 0.808. The result indicated that the interaction joint effect for the forms of activity participation and activity participation patterns did not reach statistical significance for participations' levels of comfort with involvement in short-term interactions. Thus, the researcher failed to reject this hypothesis. Further, there was no significant difference found in either main effect of the forms of activity participation (F(2, 246)= .415, ns) or the activity participation pattern (F(3, 246)= 1.401, ns). Therefore, no post-hoc analyses were conducted for this hypothesis.

Hypothesis 8: The level of satisfaction with involvement in short-term interactions at a campus recreation center did not significantly differ between different forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family).

Hypothesis 8 was to test whether participants' level of satisfaction with involvement in short-term interactions at a campus recreation center significantly differed between forms of activities and activity participation patterns. A two-way ANOVA analysis was manipulated to test this hypothesis to determine if there was any interaction joint effect of forms of activities and activity participation patterns combined on participants' satisfaction scores. The result of the two-way ANOVA test is presented in Table 27.

Table 27
Two-Way Analysis of Variance Source Table for Forms of Activity Participation and Activity Participation Patterns on Satisfaction (N= 256)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Forms of activity	321.715	2	160.857	2.961	.054
Participation pattern	242.684	3	80.895	1.489	.218
Forms of activity * Participation pattern	250.934	4	62.733	1.155	.331
Error	13362.336	246	54.318		
Total	520383.000	256			

The interaction joint effect for forms of activity participation and activity participation patterns on satisfaction had an overall F (4, 246) = 1.155, ns. The interaction joint effect of the forms of activity participation and activity participation patterns did not reach statistical significance on participations' level of satisfaction in short-term interactions; thus, the researcher failed to reject this hypothesis. Further, there was no significant difference found in either main effect for forms of activity participation (F(2, 246)= 2.583, ns) or activity participation pattern (F(3, 246)= 1.484, ns) on satisfaction. Therefore, no further post-hoc analyses were conducted.

Hypothesis 9: There was no significant relationship between the residency years of international students in the United States, the level of comfort with short-term interactions, and satisfaction with short-term interactions at a campus recreation center.

This hypothesis was to investigate whether there was any significant association between the residency years of international students in the United States and their level of comfort and satisfaction with involvement in short-term interactions at a campus recreation center. A Pearson correlation was conducted to address the relationships between residency years in the United States (M = 2.74, SD = 1.79), overall score of level of comfort (M = 54.26, SD = 17.266), and satisfaction (M = 44.47, SD = 7.426) (Table 28). The correlation between resident years in the United States and the level of comfort was statistically non-significant, r(87) = -.074, ns. Further, there was no association between the residency years in the United States and level of satisfaction with short-term interaction, r(87) = -.051, ns. The researcher failed to reject the Hypothesis 9.

Table 28
Correlation between Years in the United States, Level of Comfort, and Satisfaction if Participant is Not an American (N = 87)

	Years in the US	Level of Comfort	Satisfaction
Years in the US	--	-.074	-.051
Level of Comfort		--	-.442**
Satisfaction			--

* Correlation is significant at the 0.05 level.
** Correlation is significant at the 0.01 level.

CHAPTER V

CONCLUSION

The purpose of this study was to examine the effects of participants' Independent and Interdependent self-construal tendency, forms of activity participation, and activity participation patterns on the level of comfort and satisfaction with involvement in short-term interactions at a campus recreation center. Specifically, it was hypothesized that the Independent-Interdependent self-construal tendency, forms of activity participation, and activity participation patterns for CRC participants would each influence students' levels of comfort and satisfaction with involvement in short-term interactions. The relationships among the research variables were also investigated.

This chapter summarizes the major findings and hypotheses of the study, and discusses possible interpretations of results presented in the previous section. The demographic findings and the results of the hypotheses are presented. Furthermore, future areas of research and considerations regarding the level of comfort with involvement in short-term interactions and satisfaction are discussed. Finally, this chapter concludes with a discussion regarding implications and recommendations for future research.

Demographic Description of Sample Characteristics

In this study, the percentage of male university students to participate in the survey was greater than female students. This finding could partially address previous studies that male students are more active than female students in participating in physical activity during adolescence and young adulthood (Malina, 1996; McArthur & Raedeke, 2009).The percentages of years in school represented by subjectswere somewhat equally spread out and closely reflected the demographics of the student population (OSU Students Profile, 2008) at OSU. Thirty percent of subjects in this study were graduate students. Approximately half of subjects in this study were White/Caucasian students and one-third of the sample was Asian students, 60% of whom were graduate students. One reason that a high proportion of graduate students and international students participated in this study could be the sampling method. Friday nights were purposefully chosen for recruiting a high number of international students because international students tend to remain on campus over weekends and CRC participation is high. The large numbers of Asian respondents might have also been influenced by the fact that the investigator is an Asian; therefore, it may have been less threatening for international students to accept the invitation to respond to the questionnaire than if a non-Asian had recruited subjects.

Independent and Interdependent Self-Construal

No significant association was found between participants' independent and interdependent self-construals. This result is consistent with prior speculation that the two scales are orthogonal to each other. According to Singelis (1994), independent and interdependent self-construals coexist for everyone. This means that an individual may be

high on individualist and low on collectivist attributes or vice versa, or may have high or low levels on both individualist and collectivist tendencies. In this study, no intercorrelation was found between participants' independent and interdependent self-construals.

Typologies of Self-Construal and the Influences

The distribution of ethnicity/racial group indicates that the majority of Asian subjects were high on the interdependent self-construal tendency and White/Caucasian participants were high on the independent self-construal. This result confirms Markus and Kitayama's (1991) assertion that people from Western cultures tend to have an independent self-construal and those from Eastern societies are more likely to have interdependent self-construals. Further, in this study research subjects were relatively equally distributed into the four types of self-construals by splitting from the median scores (Bicultural, Western, Traditional, and Culturally-Alienated (C-A) groups).

Based on previous research, subjects in the Bicultural and Western groups in this study likely preferred to be direct and forthright when dealing with people they had just met compared to those in Traditional and C-A groups. Further, the findings indicated that participants in the Traditional and the Bicultural groups were likely to avoid arguments when they disagreed with group members. The results confirm the assertion of researchers related to communication styles that people with independent self-construal tend to be direct, assertive, and confrontational in social situations whereas those with interdependent self-construal tend to be indirect, employ face-saving strategies, and avoid confrontation.

Child-rearing practices in individualistic cultures tend to focus on building a distinct sense of self. People in these cultures are taught to be unique from their peers and independent persons (Markus & Kitayama, 1994). Further, people with an independent self-construal tend to express themselves directly to satisfy their own needs and to gain self-esteem (Singelis, 1994). By contrast, child rearing in collectivistic cultures tend to emphasize understanding and relating to others (Markus & Kitayama, 1994). Individuals with an interdependent self-construal generally care about others' feelings and unexpressed thoughts, and tend to communicate indirectly (Singelis, 1994). Self-esteem of those with an interdependent self comes from harmonies between interpersonal relationships and the ability to adjust to various situations (Markus & Kitayama, 1991).

Findings in this study indicate that participants in all groups value group harmony and opinions at some level, and taking consideration of parents' advice when making educational and career plans, however, those with high interdependent tendencies still scored higher than those with high independent self-construal. The findings partially support the assertion of Triandis, Brislin, and Hui (1988) and Markus and Kitayama (1991) that people with a greater interdependent tendency value group harmony, face-saving, and filial piety. The reasons for this inconsistency with previous research might be personal orientations (idiocentrism-allocentrism). According to Triandis et al. (1988), allocentric individuals in individualistic cultures are concerned about their in-groups. This means that members of the individualistic societies might have allocentric orientation, therefore, people with independent self-construal still possible to value and concern about their in-groups.

It is possible that intramural basketball games were taking place when this study was conducted. It could explain why participants emphasized the values of group. According to Markus and Kitayama (1994), European-Americans value groups and group activity, especially when such activity involves pulling together to solve a difficult problem or overcome barriers. This occurs when participating in team sports.

Discussions of Hypotheses

Hypothesis 1: There was no significant relationship between participant's level of comfort with involvement in short-term interactions and frequency of visit to a campus recreation center.

This study found that frequency of visitation to a campus recreation center had little association with the level of comfort with short-term interactions. It is not surprising to find that the more frequent participants visit to the campus recreation center, the less nervous they would experience when involved in short-term interactions. According to Chen (2002), individuals tend to perceive a higher degree of synchrony when they communicate with those with whom they have a history of interactions. It was expected that the more frequently participants visit the campus recreation center, the more opportunities they would have to become more familiar with the environment, staff, and other participants. Statistically, this finding confirms Chen's (2002) assertion, however, the shared variance ($r(256) = -141$, $p < .05$) is very small due to large sample size in this study. Further research is needed to confirm the connection between the frequency of visitation to a campus recreation center and level of comfort with involvement in short-term interactions.

Hypothesis 2: There was no significant relationship between the level of satisfaction with short-term interaction and frequency of visit to a campus recreation center.

Results of this study indicate that the frequency of visitation to a campus recreation center has a weak association with participants' satisfaction with involvement in short-term interactions. As above, when the frequency of visitation to campus a recreation center increases, participants might be more satisfied with short-term interaction experiences because they have some idea of what to expect.

There is a lack of research directly related to the frequency of visitation to a campus recreation center and interaction satisfaction. Chen (2002) indicated that communication satisfaction increases when individuals get to know each other better. Thus, it was expected that when frequency of visitation increased, participants would have more opportunities to interact with others. When individuals get to know each other and become familiar, the intimacy level becomes higher. That could support the finding of this study. The more frequently participants visited a campus recreation center, the higher the possibility they would become familiar with the environment and other participants. This might lead to decreased levels of nervousness and increased satisfaction in short-term interactions.

Campus recreation programs provide places and opportunities for participants to meet new people, interact with others, and develop positive friendships (Byl, 2002). Students who participated heavily in campus recreational programs and activities were also found to be more socially oriented than those who did not (NIRSA, 2004). Participants would have more opportunities to develop interpersonal and social skills, communication, companionship, and relationships when participating in recreational

activities (Dalgarn, 2001; Kerr & Downs, 2003; Todaro, 1993). Kerr and Downs (2003) found that participation in recreational programs and activities was correlated with overall college satisfaction and success. Heavy users of recreation programs were happier than light users and non-users. This may be one of the reasons to explain why frequency of visitation was associated with participants' levels of comfort and satisfaction in short-term interactions. However, the association between frequency of visitation and participants' levels of comfort and satisfaction in short-term interactions was weak, further research is needed for clarify.

Hypothesis 3: There was no significant relationship between participants' Independent-Interdependent tendencies scores, level of comfort and level of satisfaction in involving in short-term interactions at a campus recreation center.

The results show that participants' both independent and interdependent self-construals were negatively associated with the level of comfort with involvement in short-term interactions. However, the covariance between the interdependent self-construal and the level of comfort with short-term interactions was very small ($r(256) = -.193$, $p < .05$). Although the results establish that interdependent self-construal and level of comfort and satisfaction in short-term interactions were associated, the correlation is too weak to claim. Continued replication and extensions of future research related to the association between independent and interdependent self-construal to interaction are needed to confirm these results.

Kim et al. (2001) found that an interdependent self-construal did not have an effect on communication apprehension when individualism directly influenced communication apprehension. Kim et al. (2001) suggested that the theoretical construct

of interdependent self-construal focuses on an other-orientation, and others' needs and desires when the measures of communication apprehension to be concerned with "anxiety toward speaking situations." Communication apprehension is caused by the fragile sense of role-identity in contrast to the interdependent scale measuring a more generalized sensitivity to social context (Kim et al., 2001).

According to Kim et al. (2001), independent self-construal could be considered as the determinant of campus recreation center participants' level of comfort and satisfaction in short-term interactions. The results indicate that the higher the independent self-construal participants have, the more comfortable and satisfied they might be when engaging in short-term interactions at a campus recreation center. The results of this study do not directly confirm past research findings that interdependent self-construal does not have an impact on the outcomes of interpersonal interactions. However, results do confirm that the independent self-construal as a more significant factor associated with the outcomes of interpersonal interactions than the interdependent self-construal.

People with greater independent self-construal have been found to be more open in their communicative behaviors (Gudykunst et al., 1996), tend to have higher level of self-esteem (Singelis, Bond, Sharkey, & Lai, 1999), possess greater ability in coping with uncertainty (Gelfand, Spurlock, Sniezek, & Shao, 2000) and have greater resistance skills in dealing with embarrassing situations (Singelis & Sharkey, 1995). It might also be influenced by the fact that the association between the adjustment between participations' personal traits and the host culture prototypical traits. When individual's self-construal is similar to the self-construal prototypical in the host culture, they are more likely to interpret situations and interactions similar to host nationals (Oguri & Gudykunst, 2002).

Thus, the less disparity between participants' personal traits and host nationals' prototypical traits, the less uncomfortable and stressed they are in the host culture, and the greater the psychological adjustment. This study was conducted in an individualist culture where independent self-construal is dominant. Societal expectations of an independent self-construal are fundamental. Thus, it could be that independent self-construal was a more significant impact factor than interdependent self-construal for short-term interaction experiences in this study.

Past research has indicated that independent self-construal is an important variable in predicting individuals' psychology-related adjustment outcomes in the United States (Oguri & Gudykunst, 2002). Individuals in the United States emphasize an independent self-construal (Gudykunst et al., 1996; Markus & Kitayama, 1991); therefore, individuals who have a high independent self-construal would adapt better to the expectations of communication (Oguri & Gudykunst, 2002). When international students' self-construals are similar to the self-construal prototypical in the host culture, individuals are better able to interpret situations and interactions similar to host nationals (Oguri & Gudykunst, 2002). That is, the less disparity between international students' self-construals and host nationals' prototypical self-construals, the less uncomfortable and stressed they are in the host culture, and the greater the psychological adjustment. Since this study was conducted in the United States, which is considered to be an individualist society, it was not surprising that participants with greater independent self-construal scores were less nervous and more satisfied than those with weaker independent self-construal scores as related to involvement in short-term interactions at the campus recreation center.

Further, it is not surprising to find that the more comfortable CRC participants were when involved in short-term interactions, the more satisfaction they experienced during the interactions. According to Hubber, Guerrero, and Gudykunst (1999), participants' uncertainty and anxiety in encounters reduces the quality of communication. However, in this study the association that exists between participants' comfort level and satisfaction in short-term interactions at a campus recreation does not imply a causation. A possible reason to explain the connection is that when participants feel more comfortable interacting with others, they gain positive feedback and good impressions from the experiences. It is also possible that when people feel satisfied with interactions, the circumstances lead to a less nervous overall impression.

Hypothesis 4: There was no significant difference among participants with different S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on frequency of visit to a campus recreation center.

The relationship between the frequency of visitation to the campus recreation center and the four types of self-construal tendencies was examined. The results found no distinct personal self-construal tendency that significantly influenced frequency of participation among subjects. Burton (1981) reported that demographic and personality characteristics were found not significant to differentiate and describe participants and non-participants of social, recreational, athletic, and cultural college extracurricular activities. Participation in recreation center activities is one kind of extracurricular activity for university students. The result of this study confirms Burton's finding that participants' cultural tendencies do not impact the frequency of visit to a campus recreation center. The average high frequency of visitation to the CRC among all

different groups of participants was not surprising. It could be that a campus recreation center provides various kinds of equipment, programs, facilities, and places for meeting different people's needs and for different purposes.

Hypothesis 5: There was no significant difference among participants with different types S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on the level of comfort with short-term interactions involvement at a campus recreation center.

In this study, the level of comfort with involvement in short-term interactions was found to have significant differences among the four self-construal groups. This study found that participants in Western and Bicultural groups were more comfortable than those in the Traditional and C-A groups when involved in short-term interactions at the CRC. On the other hand, subjects in the Traditional and C-A groups were more nervous than those in Western and Bicultural groups when greeting and having a 2 to 3 minute conversation with others. This finding is similar to Singelis and Sharkey's (1995) study. Singelis and Sharkey (1995) found that people with highly independent self-construals were less nervous and less embarrassed than those with less independent self-construals. They indicated that interdependent self-construals were associated with greater embarrassability in communication. Similarly, Gudykunst and Ting-Toomey (1988) contended that individuals from collectivistic societies tend to have higher levels of communication apprehension than those of individualistic cultures. The findings of this study are consistent with these past research findings.

Hofstede (1991) contended that children in individualistic cultures are encouraged to be assertive, self-reliant, and autonomous. Those who are raised in collectivist societies and inclined to be more anxious, passive, sensitive, and reticent in novel

situations. This might be one of the reasons to explain why people with highly independent self-construal tended to be more comfortable when involved in short-term interactions than those with highly interdependent self-construals.

A possible reason why participants with high independent self-construal (the Western and Bicultural groups) were more comfortable with short-term interactions than those with high interdependent self-construal (the Traditional and C-A groups) could be due to the unfamiliar and unknown cross-cultural interactions at a campus recreation center. International students who experience and adapt new roles in the host culture might experience more anxiety in the new and unfamiliar cultural environment (Alba & Nee, 2003).

Gudykunst and Kim (1992) argued that when individuals are confronted with cultural differences they tend to view people from other cultures as strangers. The term, Strangers, refers to unknown people who are members of out-groups. Individuals who enter a relatively unknown or unfamiliar environment fall under the rubric of stranger. Gudykunst and Kim (1997) contended that interactions with people from cultures other than the original culture tend to involve the highest degree of uncertainty and anxiety. Actual or anticipated interaction with members of out-groups generally leads to uncomfortable feelings.

There were also no significant differences found between the Bicultural and the Western groups, and no significant differences between the Traditional and the C-A groups in the level of comfort and satisfaction with involvement in short-term interactions. When independent self-construal is controlled, there is no significant impact on the level of comfort and satisfaction with involvement in short-term interactions

between high and low interdependent self-construal. This confirms an earlier study where Kim et al. (2001) found that interdependent self-construal did not have effect on communication apprehension when individualism directly influenced communication apprehension.

In addition, socialcultural adjustment could be a reason that influenced this finding. Sociocultural adjustment has been connected to the process to promote and facilitate cultural learning and the acquisition of social skills in the host culture (Oguri & Gudykunst, 2002; Ward & Kennedy, 1999). One of the important social skills for international students' adjustment is adapting their communication style to that of the host culture (Oguri & Gudykunst, 2002). When international students' self-construal tendencies are similar to the self-construal f in the host culture, they should be able to interpret situations and interactions similar to host nationals (Oguri & Gudykunst, 2002; Singelis, 1994; Yamada & Singelis, 1999). The less disparity between host nationals' prototypical self-construal and personal self-construals, the less uncomfortable and stressed international students would experience when communicate with others in the host culture, and the greater their psychological adjustment.

This study was conducted in the United States, which is considered a highly individualistic culture. Therefore, individuals who have high independent self-construal should be able to adapt well in communication situations compared to those with highly interdependent self-construal. Bicultural self-construal is a product of a multicultural society, and people in this type of society are more likely than others to be flexible and adaptive in interpersonal interactions (Yamada & Singelis, 1999).

Hypothesis 6: There was no significant difference among participants with different types of S-C tendencies (Bicultural, Western, Traditional, and Culturally-Alienated) on the level of satisfaction involving in short-term interaction at a campus recreation center.

In this study, satisfaction with involvement in short-term interactions was found to have significant differences among the four self-construal groups. This study found that participants in the Western and Bicultural groups were more satisfied than the Traditional and the C-A groups when involved in short-term interactions. There is no direct link to any previous literature about individuals' self-construal tendencies to satisfaction levels in short-term interactions. Gudykunst et al. (1996) contended that culturally different individuals possess different styles of communication appropriate and effective in their own culture.

One possible explanation for this finding could be socialcultural adjustment. According to Oguri and Gudykunst (2002), when individuals' self-construal tendencies are similar to the host culture, they are able to interpret situations and interactions similar in the host society. The more individuals use communication behaviors that are appropriate in host cultures, the more they are able to communicate effectively with people in the host cultures. In this study, participants were in an individualistic environment. Subjects with highly independent self-construals (both the Western and the Bicultural groups) were more satisfied with their experiences in short-term interactions than those with low independent self-construals (both the Traditional and the C-A groups); this is consistent with previous research. Further research is needed to conduct a similar study in a collectivist culture to find out if people with highly interdependent self-

construal tendencies have higher satisfaction in short-term interactions than those with low interdependent self-construals.

Hypothesis 7: The level of comfort with involvement in short-term interactions at a campus recreation center did not significantly differ between different forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family).

In this study, activity participation pattern was utilized as one of the independent variables to investigate the effect on levels of comfort and satisfaction with involvement in short-term interactions at a recreation center. Participants in this study fell into four types of activity participation patterns. It was not surprising to have unequal distribution in these categories. More than half of the participants visited the recreation center with friends and nearly one-third participated alone.

Participants were placed into three forms of activity participation (Team, Partnered, and Individual) to examine the association with level of comfort and satisfaction with involvement in short-term interactions when combined with activity participation. Surprisingly, although more than half of the sample visited the recreation center with friends, almost sixty percent of subjects participated primarily in an individual activity, compared to one-third who engaged in a team activity. The reason could be that the nature of the campus recreation center is such that it houses a lot of individual types of activity. Subjects may have gone to the recreation center in a group to participate in single activities such as aerobics or weight lifting.

Participants in the Traditional group were the most nervous when engaged in short-term conversations with strangers. One possible reason why international students

experience more stress and difficultly than domestic students could be that English is the students' second language (Wilton & Constantine, 2003). Another reason why those in the Traditional group have the most uncomfortable experiences involved in short-term interactions with strangers might be cultural divergence. Culturally divergent individuals are very similar to those who have deficient communication skills. They do not know how to communicate effectively so they tend to be much less willing to communicate at all. The difference between the culturally divergent and the communication skill deficient is that the culturally divergent individual may have excellent communication skills for their own culture, but not for another (McCroskey & Richmond, 1990). According to Lucas (1984), "If international students are apprehensive about speaking their own language, their fear of communicating in English must be magnified tenfold. In addition, even those international students who are not apprehensive about speaking in their own language can become apprehensive about speaking in English (p. 594)."

It is not surprising that the results of this study show that CRC participants felt most nervous when greeting and having a 2 to 3 minute conversation with strangers, were somewhat comfortable with acquaintances, and very comfortable when having short-term interactions with friends. The comfort level with involvement in short-term interactions at the CRC with participation patterns confirms Gudykunst and Shapiro's findings (1996) that anxiety is lower in encounters with friends, than encounters with acquaintance or strangers. When individuals communicate with members of other groups they often have higher levels of anxiety than when communicating with in-group members. Gudykunst et al. (1992) also found that uncertainty was lower for communication with members of ingroups than for communication with members of out-groups.

Another possible reason that could explain the comfort level of participants in short-term interactions within participation patterns might be the different intimacy level and personal familiarity between participants. The primary difference between a friend and an acquaintance, or a friend and a stranger, is that of personal familiarity. Personal familiarity between friends is higher than between acquaintances and lower for strangers (Chen, 2002). Perceptions of communication (personalness, synchrony, and difficulty) are considered to vary with perceived changes in intimacy level and have been used to identify the interpersonal relationship (Chen, 2002; Gudykunst, Yoon, & Nishida, 1987). Gudykunst et al. (1987) found that interactions with out-groups, in comparison to those with in-groups, were generally less personal, less synchronized, and more difficult. Therefore, it was expected that participants were more comfortable with short-term interactions with friends than with acquaintances and strangers.

Hypothesis 8: The level of satisfaction with involvement in short-term interactions at a campus recreation center did not significantly differ between different forms of activity participation (team, partnered, individuals) and activity participation patterns (alone, with acquaintance, with friend, with family).

It was surprising to find that participants' satisfaction in short-term interactions does not differ among participation patterns in this study, although past research asserted that familiarity is related to communication satisfaction. The finding is not consistent with Lee and Gudykunst's (2001) finding that individuals prefer to interact with people who are perceived as similar to themselves and are more satisfied in communication with those people.

Friend and family social support are considered to be important factors related to physical activity participation (Wallace et al., 2000). Gudykunst and Shapiro (1996) compared interactions among three types of intercultural relationships (between friends, between acquaintances, and between strangers). They found that perceived quality and satisfaction with communication was higher in encounters with friends than in encounters with acquaintances, and the lowest in encounters with strangers. The more intimate the relationships become, the more satisfied and the less uncertain the interactions (Gudykunst & Shapiro, 1996).

In addition, both satisfaction and nervousness had no significant difference among participation pattern and forms of participation activity. No matter whom participants visited the CRC with, and no matter the types of activities in which they participated, their satisfaction and nervousness in short-term interactions did not have any significant differences. A lack of research related to how forms of participation activity and participation patterns impact the level of comfort and satisfaction with short-term interactions at recreation center exist. So in this study, forms of activity participation and activity participation patterns did not impact level of satisfaction with short-term interactions at the campus recreation center. Frequent participation in campus recreation has proven to enhance student satisfaction with the university, and improve students' emotional health and social functioning (Lewis, Barcelona, & Jones, 2001). Collins, et al. (2001) also reported frequent participation in recreational activities increases students' self-esteem. Thus, frequency of visitation could be the possible factor that influences participants' satisfaction of short-term interactions at the campus recreation center.

A possible reason that could be attributed to this result is that the satisfaction and nervousness of participants is strongly influenced by personal orientation of self-construal in this study. When individuals tend to be open, direct, and assertive in interactions, they might feel comfortable in greeting and having conversations with others, no matter the type of activity in which they participate. On the other hand, those who tend to be nervous in short-term interactions might feel nervous in any encounter.

In this study satisfaction with short-term interactions was relatively high for all participants. A possible explanation of why people from different backgrounds feel satisfied in their experiences with short-term interactions during their visit to the CRC could be that campus recreation activities provide opportunities for contacts and social interactions with others. These activities assist international students in the adjustment process. Campus recreation centers are places for students to feel relaxed, release academic stress, and experience enjoyment. It is not surprising that when people feel relaxed their satisfaction with social interaction experiences increases. Enjoyment, release of tension, and providing opportunities for social interaction are always considered as objectives in campus recreation programs, and even the most intense competitive activities can provide a source of relaxation from the physical and psychological stress (Byl, 2002; Collins et al., 2001; Ragheb & McKinney, 1993). Further, all students who attended the campus CRC belong to one large group – students at OSU. Therefore, participants could feel less threatened and more satisfied with short-term interactions, because they view all students as members of a shared group.

Another possible reason that satisfaction and nervousness with short-term interactions among the activity participation pattern combined with forms of activity

participation was not significant different could be due to unclear variables. For example, participants might visit with friends, but not participate with their friends; other participants might participate in individual activities alongside their friends. Future study is needed to clarify all possible situations.

Hypothesis 9: There was no significant relationship between the resident years of international students in the United States, the level of comfort with short-term interactions, and satisfaction with short-term interactions at a campus recreation center.

In this study, no association was found between the years of international students' residency in the United States and their level of comfort or satisfaction with short-term interactions at the CRC. This is contradictory to previous findings where the amount of time spent in the United States was found to be a determinant in the adjustment process for international students. Senyshyn et al. (2000) stated that the greater the time one stays in a new culture, the better the adjustment for international students. During the time spent in the host country for international students, their experiences increase and adaption difficulties start to disappear. Generally, increased language fluency and familiarity with the host culture lead to better acculturation and adaption.

The results of this study also contradict previous findings that the longer international students stay in the United States, the greater their independent self-construal tendency. According to Oguri and Gudykunst (2002), the less disparity exists between personal self-construal and the host nationals' self-construal, the less uncomfortable in communication in the host culture and the greater the adjustment.

A possible reason that could explain the above results is that short-term interactions in the study included a greeting and a 2 to 3 minute conversation. Greeting and short conversations do not involve much talking with both parties. Further, the general circumstance in a campus recreation center is relaxed. When people have short-term interactions and are in good moods and relaxed, it might be expected that satisfaction of interactions would be high. In addition, international students who visit a campus recreation center at least three times a week must be familiar with the environment, staff, and other participants. This could reduce their nervousness of short-term interactions at the campus recreation center.

The nonsignificant results might also be influenced by the fact that most international students in the sample were surveyed on Friday nights. It did not matter if they visited with friends or alone, many of them may have participated in activities with other international students. According to Furnham and Alibhai (1985), international students tend to socialize and establish relationships with students who share the same or similar backgrounds. For example, Japanese students play basketball with other Japanese students. Therefore, the interactions international students have in a campus recreation center might be restricted to participants from similar cultural backgrounds. Future study is needed to identify if the short-term interactions of participants are with people from similar or different cultural backgrounds.

Culturally-Alienated Group

The results of this study show that individuals who were grouped into the Culturally-Alienated group have the lowest level of comfort and the lowest level of satisfaction with involvement in short-term interactions. Specifically, the C-A group

members had higher levels of nervousness when initiating interactions than when other people initiated those interactions. According to Schlenker and Leary (1985), people who are highly anxious in interpersonal settings are less likely to initiate conversations with others, speak less often, talk for a lower percentage of the time, take longer to respond, and are less likely to break silences in the conversation.

Shyness can be a possible explanation of the White/Caucasian students who were grouped into the C-A group. According to Cheek and Buss (1981), shyness is an individual's reaction to being with strangers or casual acquaintances, and includes tension, concern, feelings of discomfort, nervousness and uncomfortableness in social situations, and a fear of negative evaluation by others. Further, people with low self-esteem might be less willing to communicate with others. Self-esteem is significantly related to the number of times people talk in group settings. Kim (2002) found that the higher the self-esteem, the more times people talked. The relationship between self-esteem and anxiety with communication and interaction has been found to be strong (Kim, 2002). In this study, people in the C-A group could be those with low self-esteem and less confident; thus, they felt the least comfortable compared to other groups.

Although participants in the C-A group had the least comfort level and the least satisfaction with greeting and short-term conversations at the recreation center, the frequency of their visitation to the CRC was higher than the average. This indicates that even though they are nervous and least satisfied with the short-term interactions at the CRC, the subjects in C-A groups are still willing to participate in activities at the recreation center. There is no literature directly related to people with both low independent and interdependent self-contruals, whereas bicultural, western, and

traditional tendencies have been addressed. Future research is needed for deeper understanding of individuals with the C-A tendency.

One possible explanation for participants in the C-A group to visit the CRC frequently is that the benefits of their visitation to the campus recreation outweigh the costs. They might avoid having interactions with others and are still able to exercise on their own to satisfy their needs for participating in campus recreation activities. A campus recreation center is a relatively friendly and open space for everyone who wants to participate in various types of activities and gain some cultural assimilation skills.

Typologies of Self-Construal and Acculturation Strategies

The typologies of self-construal in this study match Berry's model (1997) of acculturation attitudes. The four acculturation attitudes are assimilation, integration, separation, and marginalization; they appear to match the Western, Bicultural, Traditional, and Culturally-Alienated groups in this study. In the model of acculturation strategies, assimilation refers to immigrant or minority individuals who acquire the behaviors and values of the host culture and forgo their own traditional beliefs and value system. This matches traits attributed to the Western typology in this study. Integration refers to those who integrate the traditional culture with acquired characteristics of the host culture. Integration matches the description of the Bicultural group. Separation refers to those who maintain the traditional culture and are reluctant to accept or adapt to the host culture. Separation matches characteristics of the Traditional pattern. Finally, marginalization refers to immigrants or minority group members who do not maintain allegiance to their traditional beliefs, values, or behaviors, nor accept the values of the

host culture. Marginalization is common to those who are Culturally-Alienated (Berry, 2001).

According to Berry (2001), integration is the best strategy for psychological well-being, while marginalization is the worst. He further indicated that marginalization is positively associated with levels of stress, anxiety, and depression. Cultural maladjustment as well as communication apprehension and shyness could explain why one-quarter of the Culturally-Alienated group were Caucasian/white students in this study.

Communication apprehension has been found to be related to an individual's willingness to interact and communicate with others (Barraclough et al., 1988; McCroskey et al., 1989). Further, McCroskey et al. (1989) indicated that students with high communication apprehension are less likely to become involved with campus activities, and less likely to communicate with peers than those with low communication apprehension. In Yamada and Singelis's (1999) study, individuals who identified as not fitting into the school culture represented the C-A group. Adjustment problems in school would be a manifestation of alienation, and alienation within a school culture would likely generalize to the broader field of culture outside the school system (Yamada & Singelis, 1999).

Summary

The purpose of this study was to examine how individualism-collectivism, forms of activity participation, and activity participation patterns impact university students' levels of comfort and satisfaction with short-term interactions at a campus recreation center. The results of this study found that the independent self-construal tendency has

stronger impact on levels of comfort and satisfaction with short-term interactions than an interdependent self-construal. Specifically, participants of the Bicultural group reported being most satisfied and having the least discomfort with short-term interaction experiences at a campus recreation center, and people of the Culturally-Alienated group were the least satisfied and the most nervous with short-term interactions. However, forms of activity participation and activity participation patterns had no association with participants' levels of comfort and satisfaction with short-term interactions experiences at a campus recreation center.

This research is an exploratory study that examines the connections among short-term interactions and worldview at a campus recreation center. A lack of information and previous research exists related to level of comfort and satisfaction, frequency of visitation, and short-term interactions in this type of setting. This study identified many factors that might play a part in influencing interaction experiences at a campus recreation center. Continued and expanded research needs to be conducted to clarify findings.

Implication for the Future Research

Among Hofstede's (1980) cultural dimensions, the concept of individualism and collectivism has been described as the most important dimension of cultural differences in social behavior. Numerous cross-cultural studies have provided empirical evidence supporting the usefulness of the individualism-collectivism dimension as a way of categorizing cultures. However, the other dimensions of Hofstede's have been less researched, even though they can potentially be powerful predictors of social behaviors. Future research should explore the potential effect of other cultural dimensions on

communication behaviors. Further, the concept of self-construal is largely unknown in leisure studies (Walker, Deng, & Dieser, 2005); thus,future study might apply the concept of self-construal to different recreational setting.

This study was conducted at a single state university and participants were all from the university. As mentioned, school can be considered to comprise one large in-group. Therefore, future research might collect data from different settings where participants do not belong to the same in-group, such as a commercial gym or multiple universities.

Further, students who did not visit the campus recreation center were not included in this study. These non-participants might have different characteristics from the sample. Future study is suggested to compare the differentiation of cultural orientations and characteristics between participants and non-participants of a campus recreation center.

The instrument used to measure level of comfort and satisfaction was based on previous studies related to communication, which may not have fully encompassed the situation of short-term interactions in a campus recreation center. Short-term interactions along with social interaction, are difficult to quantify and define. For this reason, the relationships may not have truly been indicative due to the instrument's limitation. The development of new instruments for measuring involvement in interactions at a campus recreation setting would assist participants and managers in understanding the diverse reactions and experiences from people with different cultural backgrounds.

Implications for the Practitioner

The present study was staged at a campus recreation center. In a recreation and leisure setting a person will tend to choose activities that are enjoyable, and activities

considered recreation have been related to decreased tension and greater energy. One of the primary benefits in participation in campus recreation activities is tension and stress relief. That is a possible reason that in this study all participants were satisfied with their experiences in involving interactions. However, it is important to note that there were significant differences from participants with different cultural orientations. Thus, practitioners should be aware that participants' cultural orientations may impact their experiences at the campus recreation center.

This research is an exploratory study, which contributes to the field as a starting point for investigating the association related to short-term interactions and campus recreation experiences of participants. Future research can narrow down to specific factor related to short-term interactions experiences.

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APPENDICES

Appendix A

Information Sheet

Oral consent script to participants

Hello,
My name is Hsin-I (Terrie) Chen and I'm a doctoral student at Oklahoma State University. You are being invited to participate in a research study I'm conducting for my dissertation research. The research study is about the impacts of cultural dimension, forms of activities, and activity participation patterns on college students' level of satisfaction with short-term interactions at a campus recreation center. The target population of this research study is OSU students, if you are not a OSU student, please do not accept this invitation. If you agree, you will complete a questionnaire, which has four parts. Approximate completion time will last between 15 and 20 minutes. Please complete the survey over the desk area.

There are no known risks associated with this research study.

I will protect your confidentiality by not requiring names or any identifiable information on the survey. When you have completed the survey, you will place it in a box which I will have with me; I will shuffle the surveys on occasion so it will be impossible to tell who completed which survey. At the end of every day I will take the box and lock up the surveys; I will be the only person who will have access to the data. Data from this research study will only be presented in aggregate, and may be published in a scholarly journal. Original surveys will be destroyed no later than December 2009.

Your participation is totally voluntary. By accepting and completing the survey, you agree to participate in this research. Please understand that you have the right to withdraw your consent or discontinue participation up to the point of submitting the survey. Once you submit the survey, I will not be able to tell which survey is yours.

TEAR OFF AND GIVE TO SUBJECT

STUDY: Cultural influences and recreation participation
AUTHOR: Chen, Hsin-I (Terrie)

If you wish to contact anyone about this research study after it is finished, please contact the principal investigator (PI), dissertation advisor, or chair of the IRB.

PI: Hsin-I (Terrie) Chen, Graduate Student, 117 Colvin Recreation Center, 405-334-9658, terrie.chen@okstate.edu
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For information on subjects' rights, please contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, 405-744-1676 or email irb@okstate.edu

Appendix B

Questionnaire

Culture and Short-term Interaction

I. Character (Self-Construal Scale) Please read the questions and rate the level of agreement that best describes your character (from 1 = *strongly disagree* to 7 = *strongly agree*).		**Strongly Disagree**	**Disagree**	**Somewhat disagree**	**Neutral**	**Somewhat agree**	**Agree**	**Strongly Agree**
1.	Speaking up during a class is not a problem for me.	1	2	3	4	5	6	7
2.	I often have the feeling that my relationships with others are more important than my own accomplishments.	1	2	3	4	5	6	7
3.	I will sacrifice my self-interests for the benefit of the group I am in.	1	2	3	4	5	6	7
4.	I prefer to be direct and forthright when dealing with people I've just met.	1	2	3	4	5	6	7
5.	I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.	1	2	3	4	5	6	7
6.	I would offer my seat on a bus to one of my professors.	1	2	3	4	5	6	7
7.	It is important for me to maintain harmony within my group.	1	2	3	4	5	6	7
8.	It is important to me to respect decisions made by the group.	1	2	3	4	5	6	7
9.	I enjoy being unique and different from others in many respects.	1	2	3	4	5	6	7
10.	Being able to take care of myself is a primary concern for me.	1	2	3	4	5	6	7
11.	I act the same way no matter who I am with.	1	2	3	4	5	6	7
12.	I should take into consideration my parents' advice when making education/career plans.	1	2	3	4	5	6	7
13.	I have respect for authority figures with whom I interact.	1	2	3	4	5	6	7
14.	I respect people who are modest about themselves.	1	2	3	4	5	6	7
15.	I'd rather say "No" directly, than risk being misunderstood.	1	2	3	4	5	6	7
16.	I am comfortable with being singled out for praise or rewards.	1	2	3	4	5	6	7
17.	My happiness depends on the happiness of those around me.	1	2	3	4	5	6	7
18.	My personal identity, independent of others, is very important to me.	1	2	3	4	5	6	7
19.	I am the same person at home that I am at school.	1	2	3	4	5	6	7
20.	If my brother or sister fails, I feel responsible.	1	2	3	4	5	6	7
21.	Having a lively imagination is important to me.	1	2	3	4	5	6	7
22.	Even when I strongly disagree with group members, I avoid an argument.	1	2	3	4	5	6	7
23.	I will stay in a group if they need me, even when I'm not happy with the group.	1	2	3	4	5	6	7
24.	I value being in good health above everything else.	1	2	3	4	5	6	7

II. Experiences in attending the Colvin Recreation Center (CRC)

The following questions ask about your experiences in attending the CRC. Please read carefully and follow the instructions to write answers for each question based on your personal experiences. (Please write your answers, or place rank numbers or check marks in the boxes.)

30. During an average week, how many times do you visit the CRC?
    Approximately: times/week

31. With whom did you participate primarily in activities at the CRC today? (Check only one)

	Alone		Acquaintances		Friends		Family members

32. In what type of activity did you primarily participate at the CRC today? (Check only one)

	Team activity (e.g., basketball, volleyball, indoor soccer...)
	Partnered activity (e.g., ping-pong, badminton, racquetball, billiards …)
	Individual activity (e.g., weight lifting, golf simulator, climbing, running…)

Question 33 and Question 34 How do the following statements best describe the level of anxiety you felt when greeting people (e.g., say hello, nod your head) and in conversations lasting at least 2 to 3 minutes when you visited the CRC today? Please circle the number that indicates the level of anxiety you experienced in each greeting and conversation situation in the CRC today (from 1 = *Extremely Anxious* to 7 = *Extremely Comfortable*).		**Extremely Anxious**	**Anxious**	**Somewhat Anxious**	**Neutral**	**Somewhat Comfortable**	**Comfortable**	**Extremely Comfortable**
33.	Involvement in greeting people (e.g., say hello, nod your head)							
a.	People I knew before who are friends, and **I greeted** them first.	1	2	3	4	5	6	7
b.	People I knew before who are friends, and **they greeted** me first.	1	2	3	4	5	6	7
c.	People I knew before who are acquaintances, and **I greeted** them first.	1	2	3	4	5	6	7
d.	People I knew before who are acquaintances, and **they greeted** me first.	1	2	3	4	5	6	7
e.	People I didn't know before, and **I greeted** them first.	1	2	3	4	5	6	7
f.	People I didn't know before, and **they** greeted me first.	1	2	3	4	5	6	7
34.	Involvement in conversation lasting at least 2 to 3 minutes							
a.	People I came with who are friends. **I started** the conversation.	1	2	3	4	5	6	7
b.	People I came with who are friends. **They started** the conversation.	1	2	3	4	5	6	7
c.	People I came with who are acquaintances. **I started** the conversation.	1	2	3	4	5	6	7
d.	People I came with who are acquaintances. **They started** the conversation.	1	2	3	4	5	6	7
e.	People who did not come with me today who are friends. **I started** the conversation.	1	2	3	4	5	6	7
f.	People who did not come with me today who are friends. **They started** the conversation.	1	2	3	4	5	6	7
g.	People who did not come with me today who are acquaintances. **I started** the conversation.	1	2	3	4	5	6	7
h.	People who did not come with me today who are acquaintances. **They started** the conversation.	1	2	3	4	5	6	7
i.	People I didn't know before but I recreated with today. **I started** the conversation.	1	2	3	4	5	6	7
j.	People I didn't know before but I recreated with today. **They started** the conversation.	1	2	3	4	5	6	7
k.	People I didn't know before and I did not recreate with today (but I saw them in the building). **I started** the conversation.	1	2	3	4	5	6	7
l.	People I didn't know before and I didn't recreate with today (but I saw them in the building). **They started** the conversation.	1	2	3	4	5	6	7

III. Satisfaction of the short-term interaction The following questions ask how your reactions to the interactions you just had in the Colvin center. Please circle the number that indicates how much you agree or disagree with each statement (from 1 = *strongly disagree* to 7 = *strongly agree*).		**Strongly Disagree**	**Disagree**	**Somewhat disagree**	**Neutral**	**Somewhat agree**	**Agree**	**Strongly Agree**
35.	I was very satisfied with my experience today at the recreation center.	1	2	3	4	5	6	7
36.	I enjoyed the interactions I had at the recreation center today.	1	2	3	4	5	6	7
37.	I did not appreciate my experience today at the recreation center.	1	2	3	4	5	6	7
38.	I was not very content with the interactions I had at the recreation center today.	1	2	3	4	5	6	7
39.	The interactions I had influenced my experiences at the recreation center.	1	2	3	4	5	6	7
40.	I did not value the interactions I had at recreation center today.	1	2	3	4	5	6	7
41.	I was very satisfied with the interactions I had at the recreation center today.	1	2	3	4	5	6	7
42.	I would like to have similar interaction experiences like what I had today at the recreation center.	1	2	3	4	5	6	7

IV. Demographics (Please write answers and check marks in the boxes.)											
43. Sex		Female		Male							
44. Age		Under 25 (include 25)				Over 25					
45. Year in school		Freshman		Sophomore		Junior		Senior		Graduate	
46. How many semesters have you attended OSU in Stillwater?											
47. Marital status		Single		Married/partnered				Casual dating			
48. How do you define your racial/ethnic background (please check all that apply)?											
		White/Caucasian		Asian		Hispanic/Latino/Chicano					
		American Indian		African American		Other:					
49. What is your country of origin?											
50. What is your citizenship?											
51. If you are not an American citizen, how many years total have you been lived in the US?											

THANK YOU FOR YOUR PARTICIPATION

Appendix C

Institutional Review Board Approval

Oklahoma State University Institutional Review Board

Date:	Wednesday, December 03, 2008
IRB Application No	ED08179
Proposal Title:	How Does Individualism-Collectivism, Forms of Activities, and Activity Participation Patterns Impact College Students' Level of Satisfaction With Short-term Interactions at a Campus Recreation Center?
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 12/2/2009

Principal Investigator(s):

Hsin-I Terrie Chen
2303 Bridlewood Dr.
Stillwater, OK 74074

Debra Jordan
183 Colvin Center
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Shelia Kennison, Chair
Institutional Review Board

Oklahoma State University Institutional Review Board

Date:	Monday, February 16, 2009	Protocol Expires:	12/2/2009
IRB Application No:	ED08179		
Proposal Title:	How Does Individualism-Collectivism, Forms of Activities, and Activity Participation Patterns Impact College Students' Level of Satisfaction Witl Short-term Interactions at a Campus Recreation Center?		
Reviewed and Processed as:	Exempt **Modification**		

Status Recommended by Reviewer(s) **Approved**

Principal Investigator(s):

Hsin-I Terrie Chen
2303 Bridlewood Dr.
Stillwater, OK 74074

Debra Jordan
183 Colvin Center
Stillwater, OK 74078

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB.

☐ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

The reviewer(s) had these comments:

The modification requestiing minor revisions to the questionnaire is approved.

Signature :

Sheila Kennison, Chair, Institutional Review Board

Monday, February 16, 2009
Date

VITA

Hsin-I (Terrie) Chen

Candidate for the Degree of

Doctor of Philosophy

Dissertation: HOW DOES INDIVIDUALISM-COLLECTIVISM, FORMS OF ACTIVITIES, AND ACTIVITY PARTICIPATION PATTERNS IMPACT COLLEGE STUDENTS' LEVEL OF SATISFACTION WITH INVOLVEMENT IN SHORT-TERM INTERACTIONS AT A CAMPUS RECREATION CENTER?

Major Field: Health, Leisure, and Human Performance, Option in Leisure Service

Biographical:

Personal Data: Born in Changhua, Taiwan, On November 27, 1978.

Education: Graduated from Ching Cheng High School, Changhua, Taiwan in July, 1996; received Bachelor of Science degree in Life Applied Science from Fju-Jen Catholic University, Taipei, Taiwan in July, 2000; received Master of Science degree in Recreation Management from University of Wisconsin-La Crosse, La Crosse, Wisconsin in May, 2004; Completed the requirements for the Doctor of Philosophy degree with a major in Health, Leisure, and Human Performance at Oklahoma State University, Stillwater, Oklahoma in July, 2009.

Experience: Employed as a teaching assistant/graduate assistant, 2004-2008, Leisure Studies programs, at Oklahoma State University.

Professional Memberships: National Recreation and Park Association.

Name: Hsin-I (Terrie) Chen Date of Degree: August, 2009

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: HOW DOES INDIVIDUALISM-COLLECTIVISM, FORMS OF ACTIVITIES, AND ACTIVITY PARTICIPATION PATTERNS IMPACT COLLEGE STUDENTS' LEVEL OF SATISFACTION WITH INVOLVEMENT IN SHORT-TERM INTERACTIONS AT A CAMPUS RECREATION CENTER?

Pages in Study: 196 Candidate for the Degree of Doctor of Philosophy

Major Field: Health, Leisure, and Human Performance, Option in Leisure Studies

Scope and Method of Study: To understand cultural differences in experiencing short-term interactions at university campus recreation center, the purpose of this study was to examine how individualism-collectivism, forms of activity participation, and activity participation patterns impact university students' level of comfort and satisfaction with short-term interactions at a campus recreation center. An on site survey and quantitative analysis were applied in this study.

Findings and Conclusions: The results of this study found that participants' independent self-construal tendency has stronger impact on their levels of comfort and satisfaction with short-term interactions than their interdependent self-construal. Specifically, participants of the Bicultural group reported being most satisfied and least uncomfortable with short-term interaction experiences at a campus recreation center. People in the Culturally-Alienated group were the least satisfied and the most nervous with short-term interactions. However, forms of activity participation and activity participation patterns had no association with participants' levels of comfort and satisfaction with short-term interactions experiences at a campus recreation center.

ADVISER'S APPROVAL: Dr. Deb Jordan