

ROMANTIC RELATIONSHIPS DEVELOPED BY
INTERNATIONAL STUDENTS
AT SOME COLLEGES AND UNIVERSITIES IN HAWAI'I

A THESIS SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAI'I IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS
IN
COMMUNICATION

MAY 2004

By

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ACKNOWLEDGEMENTS

It is more than a word of thanks that I owe to many people who have made my life in Hawai'i, the past four years, an enriching and precious experience. I hope I will be able to reciprocate someday by giving, perhaps to another set of people, what I have received from those people. Here, I would like to express my gratitude to all those who gave me the possibility to complete this masters thesis.

First, I am deeply indebted to my advisor and chairperson of my thesis committee, Dr. Jeffery Ady whose substantial advice, stimulating suggestions and encouragement helped me in all the time of research for and writing of this thesis. His comments have been always of greatest help.

I owe a debt of gratitude to Dr. Gary Fontaine for being on my thesis committee, kindly providing guidance throughout the development of this study, and generously sharing his time to teach me for my data analysis.

I owe Dr. Min Sun Kim special acknowledgement for being on my thesis committee and providing me profound ideas and advice, and invaluable support throughout the project.

I would like to express my sincere appreciation to the entire staff at the International Student Services office at the University of Hawai'i at Manoa where I have learned so much about international students, intercultural relationships and spirits of Ohana. I wish to acknowledge their cooperation and support for my project.

I would also like to extend my thanks to the members of the International Student Association who are my awesome friends as well for constantly giving me heartfelt support, inspiring me with their valuable thoughts and ideas, and lots of Aloha.

Finally, I would like to give my special thanks to my parents, my brother, my cousin, and my dear, Jung Sa for their tremendous support and encouragement, and always believing and loving me.

ABSTRACT

This study explored some aspects of romantic relationships developed by international students in Hawaii. The study examined the major motivators for international students to develop romantic relationships with other students. Similarity, propinquity, mere exposure, social isolation and psychological stress, physical attractiveness, and personal liking were assessed as the motivators. The study then examined the degree of romantic commitment to the relationships. In this study, three groups of relationships formed by international students were observed and compared: international students with other students from the same countries of origins, international students with other students from different countries of origins, and international students with American students. A survey was administered to 95 international students in Hawaii who have developed romantic relationships. The results indicated that personal liking was considered to be the most significant motivator for international students to develop romantic relationships followed by physical attractiveness and similarity. Regardless of their partners' countries of origins, the findings indicated the degree of romantic commitment of international students was relatively high.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

The rich history of international students and scholars in the United States (U.S.) can be traced back to colonial colleges. The U.S. has been and continues to be a destination for students from throughout the world due to technological advances, an increasing global economy, universal acknowledgement for the U.S. superiority in higher education, and ease of travel (Bevis, 2002). More international students are now enrolled in American colleges and universities than in any other country.

Since the beginning, international students have had to undergo varying levels of academic and social adjustment. The process can be influenced by a myriad of factors, particularly English language ability, but also by personality characteristics, financial status, academic status, cultural background, political philosophy, race, physical appearance, living arrangements, age, length of stay, maintenance of immigration requirements, preconceptions, and expectations. Students may also suffer from loneliness due to the loosening of social ties with people in their native countries. It takes differing amounts of time and effort for individual students to become effectively integrated (Bevis, 2002).

Previous studies of international students cover a wide range of topics including numbers and distribution (e.g., Jerkins, 1983; IIE, 2000), special multicultural counseling programs (Dillard & Chisolm, 1983; Leong and Chou, 2002), the need for training in library skills (e.g., Cope & Black, 1985; Hoffman & Popa,

1986), and language training (Grafton, 1970; Sharp, 1982). The issues related to adjustment problems of international students, including academic and social adjustment processes, and preparation for returning home, seem to dominate the pervious studies (Altback, Kelly & Lulat, 1985).

International students are enrolling in American colleges and universities in increasing numbers, yet we know little of their romantic relationships on the U.S. campuses. Although many studies have explored intercultural romantic relationships (e.g., Spickard, 1989; Romano, 1997; Breger & Hill, 1998), much of the research concentrates on marital relationships. While this is useful, there are few studies regarding foreign students in American colleges or universities who date interculturally. Therefore, study is needed relating to intercultural dating/romantic relationships among the international student population in the U.S. colleges and universities.

For better understanding of romantic relationship of international students, it is vital to examine following two aspects: (1) the motivators in romantic relationships developed by international students and (2) the degree of romantic commitment to the relationships formed by international students. Looking at similarities and differences among three groups of relationships developed by international students; international students with other students from the same countries of origin; international students with other students from different countries of origin; and international students with American students, may help to grasp their romantic relationships.

Such a study is important because it may provide further understanding of international sojourners. Exploring romantic relationships developed by the sojourners may facilitate the future research on variety of the international student issues, counseling literature of international students as well as the functions and roles of the International Student Office in the U.S. colleges and universities.

Purpose of the Present Study

The purpose of this study was to examine characteristics of the romantic relationships developed by international students attending colleges and universities in Hawaii. The main objectives of the current study were: (1) to examine the main motives for international students to initiate romantic relationships in a framework of mate selection and interpersonal attraction theories; (2) to compare and contrast those motivator for the international students to develop the relationships among three groups of romantic relationships: international students with other students from the same countries of origin, international students with other students from different countries of origin, international students with American students; (3) to assess the degree of romantic commitment to the romantic relationships developed by international students; (4) to examine the relationship between those three groups of the relationships and the degree of commitment. The multicultural setting of Hawaii, where intercultural communication is more common and intercultural dating and marriage more easily observed, offers a unique opportunity to identify the characteristics of romantic relationships developed by an international student population.

CHAPTER 2

LITERATURE REVIEW

In reviewing the literature on romantic relationships among international students, it soon became apparent that many researches have written about either social or academic adjustment experiences of international students, romantic relationships or intercultural marriages among American population. In fact, the few studies that have focused on romantic relationships among international students have been anecdotal in nature and none have provided empirical data. Therefore, it is important to examine literature external to the subject of “international students”, “romantic relationships” “intercultural marriage” and “intercultural dating”. In looking at the characteristics of an international student friendship network, the characteristics of a romantic relationship for American population, and the formation of intercultural marriage in the U.S., the foundation for the present study was be laid. Studies on variables that may influence characteristics of romantic relationship in relation to international students were examined. Yet, in order to fully understand the situation of international students and their characteristics of the romantic relationships, it is important to first review past definitions, models, and studies of international students as well as characteristics of romantic relationships in the United States.

International Students

General background of international students

Literature on international students covers a wide array of topics including numbers and distribution, special multicultural counseling programs, the need for training in library skills, language training. The most prominent ones are the issues related to adjustment problems including academic and social adjustment processes, and preparations for returning home (Altbach, Kelly & Lulat, 1985).

International students comprise approximately 3% of the total enrollment in the U.S. institutions of higher education (U.S. Department of Education, 1998). Students from Asia consist of more than half of the foreign student population in the US (IIE, 2000). Five leading countries are China, Japan, Korea, India and Taiwan. Indeed, Asians have been an important part of the international student population since World War II.

Paige (1990) defines international students, also termed foreign students, as “individuals who temporary reside in a country other than their country of citizenship or permanent residence in order to participate in international educational exchange as students, teachers, and researchers” (p. 162). Underlying this definition is the short-term status of the sojourners, the purpose (e.g., education) of the sojourn, and the cultural differences between the sojourner and host nationals (p. 162). This definition differentiates the international student from other kinds of international sojourners. As Paige suggests, this definition excludes refugees and immigrants “because they are no longer permanent residents or citizens of the countries they left,

neither are they temporary sojourners in their new countries of residence” (p. 163). Furthermore, because of the motivation for sojourn and the length of residence, it can be argued that immigrants and refugees have different psychological reactions to the host culture than international students (Berry, 1990).

A major concern for international students is cultural adaptation and adjustment. Upon arrival in a new country, the reality of being a “foreigner” challenges a person with a number of personal, social, and environmental changes. The experience of international students has generally been described within the framework of various problems. They have been reported to exhibit stress and high levels of social alienation, experience culture shock, exhibit psychological symptoms associated with cross-cultural adaptation, and struggle in two cultures with difficulty (Marion, 1986).

There seems to be a general consensus that international students are a high-risk group who have more psychological problems than their U.S. peers (Schram & Lauver, 1988). Pedersen (1991) summed up the situation in his statement that “International students are likely to experience more problems than students in general and have access to fewer resources to help them.” (p. 24).

In the counseling literature, a variety of reasons has been suggested as contributing to the psychological problems of international students. The areas of language barriers (Marion, 1986), separation from family support systems (Marion), and problems related to culture shock and social adjustment (Pedersen, 1991) are obvious recurrent themes.

Several authors have studied the psychological problems of international students. In one of the earliest studies of international students, Kilineberg and Hull (1979) identified personal depression, homesickness, and loneliness as the major concerns. Many other writers postulated the major concerns as high anxiety (Pedersen, 1991); stress, frustration, fear, and pessimism (Dillard & Chisolm, 1983); perceived alienation and racial discrimination (Heikinheimo & Shute, 1986); loneliness (Schram & Lauver, 1988); and psychosomatic disorders (Thomas & Althen, 1989).

Friendship networks of international students and adjustment

A number of studies have addressed international student friendship patterns (Brein & David, 1971). Friendship patterns of international students can be divided into two: international student's social interaction with American students and with others of the same cultural background. Bocher, McLeod, and Lin (1977) and Furnham and Alibhai (1985) have proposed the "functional model" based on their findings when asked whom they would select as companions for specific tasks international students preferred host nationals for academic and language help, while they preferred home nationals for help with personal problems and sharing social activities.

A number of previous studies of the adjustment of international students to university life in the U.S. have emphasized the importance of assimilating into American culture and learning to effectively interact with Americans (or the majority group, i.e., Caucasian Americans) as factors influencing the adjustment process (Quintana, Vogel, & Ybarra, 1991). It is assumed that international students with

more contact with host national students are thought to experience fewer adjustment or mental health problems and are more successful in avoiding personal problems, meeting life needs, and fulfilling academic demands than those with less contact with native students, and when such problems occur are more likely to find appropriate intervention.

Many aspects of the life experiences of international students studying in the U.S. require interaction with Americans, both in and out of the academic arena. International students must interact with American professors, administrators, and students in an academic arena. Further, they may also interact with Americans during leisure time activities such as shopping, banking, and recreation. Social contact with in-group (academic) members gives out-group (non-academic) members the opportunity to observe and evaluate life from the in-group member's perspective, thereby leading to a deeper understanding and appreciation of the out-group member's way of life (Amir, 1983). The development of effective skills in interacting with members of a host society may be utilized as a means of social support in resolving personal problems related to the adjustment process.

Despite the apparent benefits, previous research indicates that some international students may choose to seek companionship among fellow students of the same nationality or other people who share common cultural traits such as a common language or religion. Those students may choose not to assimilate into American culture and develop social relationships with Americans. Sewell and Davidson (1956) identified the detached observer pattern of adjustment. International

students following this pattern of adjustment exhibit no desire to involve themselves socially or emotionally in the life of the host country. These students perceive their duration of stay in the host country to be short and they prefer not to associate themselves with Americans. To satisfy their social needs, the detached observer tends to seek companionship among fellow students of his or her own nationality. Swell and Davidson (1956) reported that international students in this category do not tend to encounter severe adjustment problems, either in the host country or upon their return to their home countries, because they do not lose their identity with the home country and have limited participation in American life.

However, international students who develop strong ties with others of the same cultural background at American universities are faced with the dilemma of balancing life within two different social contexts (Basu & Ames, 1970). On the one hand, they are required to interact with and maintain close ties with people of their same cultural background. On the other hand, they are required to socialize with Americans (at least in the academic arena), perform their academic work, and meet some essential personal needs (e.g., purchase food and other essential goods, manage finances) within the context of American culture. Being able to effectively meet the demands required by both of these social contexts is arguably one of the most demanding tasks faced by international students. Failure in balancing the demands posed by each social context can result in problems (e.g., loss of friends, academic problems, financial problems etc.) that can negatively affect self-esteem and personal adjustment.

Furnham and Alibhai (1985) conducted a study on the friendship networks of foreign students in London. Their sample group consisted of 140 students from thirty-five different countries. Subjects were asked to specify various aspects of their three best friends, and also their preferred companion for each of a range of situations on a daily basis (e.g., visit doctor, go shopping). The friendship network data reveals a strong preference for co-national friends first, other nationals second and host nationals third. The preferred companion data showed co-nationals first, then host nationals and finally other nationals. The result also shows that host nationals are preferred for academic and language help and also for dating. Although there is no difference between the nomination of co- and other nationals, for dating, a third of the subjects preferred a host national (British). However, because subjects were asked to think of an actual rather than a hypothetical person, this nomination of host national dating partners may simply be an indication of a non-fulfilled wish. Meanwhile, co-nationals were chosen for emotional help, shopping, movie and party attendance. Furthermore, this study shows that there is a preference not only for co-nationals but those coming from similar cultures or neighboring countries which may be similar in religion, language, climate etc.

Similarly, Al-Sharideh and Goe (1998) conducted a study on international students' personal adjustment and establishment of social ties with Americans and other students of a common cultural background at Kansas State University. The result of the study shows the establishment of strong ties with Americans has an independent, positive effect in promoting a student's self-esteem. Additionally, such

strong ties are likely to facilitate personal adjustment by providing sources to help interpret and assimilate American culture to the extent that is necessary for the student, and to help reduce uncertainties and problems arising from the American social environment. However, the development of strong ties with Americans is not as important a factor in promoting the self-esteem of an international student as the development of strong ties with others of the same cultural background.

On the other hand, the finding from the study shows that participation in an ethnic community via the establishment of strong ties with people of the same cultural background play an important role in influencing the personal adjustment and the self-esteem of international students. Through establishing and participating in ethnic communities, international students are able to better maintain their cultural identities, cope with problems that emerge during their studies, and to have a positive self-attitude.

Dating

Development of dating

The term dating originally referred to a specific date, time, and place of meeting (Schwartz & Schott, 1994). Thus, to speak of dating simply meant that two people of the opposite sex met at a mutually agreed-upon place and time and engaged in conversation. Dating has not remained constant over the decade.

a) Before 1920s

In colonial United States, marriage was considered to be of the utmost importance in bringing order and stability to daily family living. During this period,

couples came together through a variety of means, including matrimonial advertisements and third party go-betweens (Ramu, 1989).

b) The 1920s through 1930s

During the 1920s and 1930s, dating was especially visible on college campuses (Waller, 1937). Although college students represented only a small and select portion of America's youth – primarily white and middle class – their activities and behavior became the model for other youth. In a pioneering study of college dating patterns, Waller described dating on college campuses during this period as a competitive system that involved rating prospective partners based on clear standards of popularity.

c) The 1940s through 1950s

Dating spread from college campuses to most cultural groups in the United States during the 1940s and 1950s (Cherlin, 1981). Dating became essentially a filtering process in the sense that a person dated many people before settling down with one person. Only then did serious dating or courtship begin, with the ultimate goal being marriage (Ramu, 1989). Acceptance of the idea that dating should culminate in marriage seems to be reflected in the fact that the 1950s had the highest percentage of married adults on record (Cherlin, 1981).

During the 1950s, a variant of the traditional dating pattern developed and became popular among young people was going steady – an exclusive relationship with one person. LeMasters (1957) described that going steady as an important intermediary state in the dating pattern of the 1940s and 1950s. In addition, dating

this period clearly revealed in American society's emphasis on traditional gender roles, marriage, and the sexual double standard, with male being the aggressor and the female playing a submissive role (Ramu, 1989).

d) The 1960s through 1970s

Dating was transformed into a casual and spontaneous form of courtship during 1960s and 1970s. There was an increasing emphasis on "going Dutch," where each person paid her or his own way (Ramu, 1989). By the 1960s, people were delaying marriage to a later age. During the 1970s, cohabitation – living together without being legally married – became a common extension of the traditional dating continuum, especially on college campuses among urban middle-class white, and served as either an alternative or adjunct to steady dating and engagement (Gwanrtney-Gibbs, 1986).

e) Contemporary trends in dating in the US

There is some consensus among sociologists that although most Americans continue to find mates through dating of some sort, dating is no longer what it was prior to the mid 1960s (Murstein, 1980). Not only have the structure and content of dating changed, but so has the terminology. Although some people still date in the traditional pattern, where each person has specific roles to play, most people today prefer to say they are "going out" with someone. Even though the term dating is less commonly used, however, the practice nonetheless continues, albeit in different forms.

Jacquet and Surra (2001) consider that there are four stages of dating relationship: casual dating, which refers to the partners not viewing themselves as a

couple, and they may or may not have been dating others; serious dating, which means that each partner and other people saw them as a couple; going steady, which is placed between serious dating and plan to get married and is defined as both partners having a long regular romantic relationship; plan to get married, which the partners had arrived at a private understanding that they would get married.

In the 1990s, dating is based far more on mutuality and sharing than on traditional gender roles. Dating today includes considerably more casual sexual involvement and fewer committed relationships than in the past (Schwartz & Scott, 1991). For many couples, dating, sexual intimacy, living together, becoming engaged, and sometimes having a child have become a common part of a hetero sexual relationship that may or may not culminate in marriage. Dating also has become very time-contained, sometimes existing only for the moment for sexual or recreational purposes with no pretense that it is a prelude to courtship or marriage (Staples, 1981).

Functions of dating

Literature on dating is abundant in Western societies. Erikson (1968) described human life as a cycle containing eight development stages: infancy, toddler, early childhood, school age, adolescence, young adulthood, adulthood, and maturity. Dating constitutes an important activity in at least two developmental stages: adolescence and young adulthood.

For adolescents and young adults, dating plays very important functions. Dating is seen as recreation or an opportunity to have fun (McDaniel, 1969), as a means of status grading (Skipper & Nass, 1966), as a means of socialization leading

to personal and social growth, as an opportunity for companionship with members of the opposite sex (Erikson, 1968), and as a means of mate sorting and selection (McDaniel, 1969). Dating is also regarded as a means of personality development, a search for personal identity and individual worth, and a striving toward maturity (McCabe, 1984). Further, Ramu (1989) summarizes the functions of dating in terms of socialization, recreation, status grading and achievement, and mate selection leading to marriage.

a) Socialization as a function of dating

The socialization function usually occurs in the early stages of dating (Ramu, 1989). Through dating, people learn the norms, roles, and values that govern heterosexual relationships. Dating is a competitive situation in which an individual can test and refine a number of interactive skills with respect to the opposite sex. Dating also provides an opportunity for sexual experimentation and growth.

In addition, the socialization function of dating can serve to enhance the ego or sense of self. According to Mead (1935), a major way people develop a personality and gain a sense of self is through relationships with others. If a positive self-concept is attributable in part to successful experiences with others, an important stage in an individual's personality development can occur during dating experiences.

b) Recreation as a function of dating

For most people, regardless of age, dating provides an opportunity to relax, have fun, and enjoy themselves in the company of someone they like. Ramu (1989) and other social scientists distinguish between adolescent and adult patterns when

discussing the recreational function of dating. The assumption is dating in adolescence serves a recreation function (the seeking of fun and thrills); it is often an end in itself. In contrast, in adulthood it involves courtship and often directed toward finding a marriage partner.

c) Status grading and achievement as a function of dating

Most Americans view dating in positive terms (Ramu, 1989). Thus, the more one dates, the more likely one's status and popularity will increase. Status grading and achievement in dating is a process whereby women and men are classified according to their desirability as dating partners. According to Ramu, although this principle may have been operable in the 1930s, the changing values governing sex roles today and the importance attached to qualities other than beauty and athletic prowess have reduced the importance of status seeking among contemporary dating couples.

d) Mate selection as a function of dating

Although mate selection is no longer the primary objective of dating, dating continues to be the primary strategy for mate selection in the United States (Ramu, 1989). Dating initially simply brings people together for recreational and romantic purposes, over time it can become a means of socialization for marriage. An accumulation of dating experiences helps those who want to marry in their efforts to find a marriage partner.

Cross-cultural perspective of dating

Dating in the United States refer to a process of paring off that involves the open choice of mates and engagement in activities that allow people to get to know each other and progress toward mate selection (Schwartz & Schott, 1994). In the U.S., social pressures, from peers or from the wider society, are in favor of dating rather than against it (Williamson, 1977). At American high schools, for instance, ability to have dates is an indicator of “popularity” (McCabe, 1984; Williamson, 1977). However, this is not a common practice in many countries, in places such as China, India, South America, and most countries in Africa.

Dating in China, for an example, is opposite in almost every aspect in the United States. Opportunities for dating are limited. Dating in high school during junior and senior year is considered deviant. High school teachers and counselors regard it as their responsibility to convince their students that early dating in high school is detrimental to their psychological growth and intellectual development (Tang & Zuo, 2000). High school daters are usually considered deviants needing special attention from their parents and teachers. Dating in high school is also frowned upon by the whole society. Besides the school authority and the parent generation, whose average age at marriage was in the late twenties, also disapprove of any dating attempts during the high school level (Murstein, 1980). Furthermore, “dating relationship” or “romantic relationship” to the Chinese contains the elements of necessary seriousness and long-term commitment. A dating or romantic relationship is often perceived as one step before marriage (Hsu, 1970).

In addition, it is forbidden in most Muslim countries including Iraq, Egypt, Iran, and Saudi Arabia. Only in Western societies, such as the United States, Great Britain, Australia, New Zealand, and Canada, dating is a common form of mate selection. In these countries, dating is perhaps the single most important method by which people get acquainted with each other, learn to interact heterosexually, and select a mate.

Romantic Relationships

The term “romantic” in Longman Web Dictionary (2003) is “something connected with feelings of love or with a loving relationship.” It can be considered that romantic relationships are close or intimate relationships between individuals who have feelings of love to one another. There are many kinds of love, probably as many as there are types of people who love and are loved. Love encompasses a wide variety of feelings and behaviors ranging from those regarding parents, friends, siblings, and children to those regarding spouses or partners. Because each person expresses and experiences love differently, there are a variety of definitions and types of love. Thus, love researchers are saddled with the problem that “love” means different things to different people.

However, the feelings of love in romantic relationships differ from the sort of love existing between children and their parents, close friends, and men and God. Therefore, in this research paper, the term “romantic love” is used to differentiate the feelings of love in romantic relationships and other human relationships.

What is romantic love?

What is romantic love? This question has been pondered, discussed and addressed by philosophers, novelists, poets, playwrights, theologians, marriage counselors, psychologists, and individuals throughout history. The study of romantic love has become a legitimate area of scientific inquiry only during the past generation (Hendrick & Hendrick, 2000). Just because love is studied scientifically, it does not mean that there is agreement on either the definition of love or the relations of love to other interpersonal constructs such as intimacy, trust, and commitment. Kovecses (1991) performed a linguistic analysis of love terms used in everyday life. He discovered people use many metaphors to describe love, forming an implicit commonsense theory of love. Powerful emotional feeling is one aspect of romantic love within the commonsense theory.

From a different perspective, another eminent scholar observed wittily that if she is “forced against a brick wall to face the question by a firing squad who would shoot if not given correct answer for what is love,” she would be forced to say, “it’s about 90 percent sexual desire as yet not sated” (Berscheid, 1988, p.373). Clearly, adult romantic love is closely linked to sexual desire and is a significant element in intimate relationships. This deeply intertwined link between love and sexuality adds its complexity greatly as a topic for research.

Additionally, romantic love is often characterized as involving a sudden onset or love at first sight. Averill and Boothroyd state (1997), “Love is a passion: One does not enter into love quietly and with deliberation; rather, one is ‘gripped,’

'seized,' and overcome by love. That, at least, is the romantic stereotype or ideal" (p. 240). Romantic love is also seen as an intense emotional reactions (Averill & Boothroyd, 1977), excitement and day dreaming (Knox & Sporokowski, 1968), expectation of future involvement – particularly marriage (Averill & Boothroyd, 1977; Crosby, 1985), and belief in statements such as "love conquers all" and "true love only comes once" (Knox & Sporokowski, 1968).

Therefore, needless to say, there are many approaches to romantic love. It is not possible to give a single definition of love; however, it may have in common which only takes place in a relationship with another person.

Theoretical approaches to romantic love

a) Loving and Liking

One approach has distinguished loving and liking. Zick Rubin (1970) was one of the first social scientists who attempts to operationalize and empirically distinguish between love and related phenomena such as liking, or interpersonal attraction, and the love between children and parents, an individual and God, and close friends. For this study, loving is equated with the concept of romantic love, and liking is equated with attraction between opposite sexes. These two concepts represent a different level of emotional involvement between two people.

Rubin (1970) viewed love conceptually as "an attitude held by a person toward a particular other person" (p. 265) and also defined romantic love as "love between unmarried opposite-sex peers, of the sort which could possibly lead to marriage" (p. 266). Rubin viewed love as composed of three elements: attachment,

caring, and intimacy. Attachment refers to the powerful desire to be in the other's presence, to make physical contact, to be approved of, to be cared for. Caring is the willingness to sacrifice oneself for the sake of the other person. Intimacy is the union and bond between these two individuals. What makes liking different from loving, according to Rubin, is its emphasis on evaluating the other person. That is, an individual likes someone only if he or she thinks of that person as good intellectually and morally, and worth his or her respect. Through empirical procedures, Rubin has developed scales measuring love and liking, which provided support for his theory.

Although Rubin (1973) is associated with a physical or emotional need in his conceptualization of love, “a passionate desire to possess and to be fulfilled by another person” (p. 213), he chose to interpret this “love-need” as a nonsexual attachment similar to the bonds formed between infants and their parents. None of the scale items could be considered even remotely sexual.

Measurement

Rubin (1970) developed the Love Scale and the Liking Scale simultaneously by assessing a large pool of loving and liking items based on a literature review. Both scales consist of 13 items. Examples of three items from each of the two scales are presented in Table 1.

Table 1. Examples of three items from Rubin's (1970) Love and Liking Scales

Love

4. I would do almost anything for _____.
6. If I could never be with _____, I would feel miserable.
9. I would forgive _____ for practically anything.

Liking

2. I think that _____ is usually well-adjusted.
 3. I would highly recommend _____ for a responsible job.
 9. I think that _____ is one of those people who quickly wins respect.
-

Both scales are based on factor-analytic result that yielded two dominant general factors of love and like. The scales do possess high internal consistency (coefficient alpha) of .84 for female and .86 for male on the Love Scale, and of .81 for female and .83 for male on the Liking Scale.

Rubin's empirical research provides insight into the nature of loving and liking for men and women. Rubin (1970) used the Love and Liking scales to evaluate gender differences regarding relationships with lovers and friends (including opposite-sex and same-sex friends). Four major conclusions were reached: (1) the average love scores between men (for their girlfriends) and women (for their boyfriends) were almost identical; (2) women liked their boyfriends significantly more than they were liked in return; (3) men and women are at the same level in liking their friends of the same sex; (4) women tended to love their same sex friends more than men did.

Rubin's work represents an early attempt in social psychology to empirically assess and differentiate the concepts of romantic love and liking. The development of

the Love and Liking scales prove valuable for the empirical assessment of a psychological construct such as romantic love. Because of this, the scales show promise of future research that may attempt to distinguish among patterns of love relationships.

However, there is one weakness that lies in Rubin's work which lacks a strong theoretical foundation to differentiate between liking and love, and also to link these two concepts with their respective structural components. His entire theory seems to remain an empirical induction approach without consideration of rigorous networking between theoretical foundation and empirical evidence. For example, the overall construct of love was decomposed of three structural components at the theoretical level. But the measurement of Love Scale was developed and represented by the composite of its 13 marker items as a whole, regardless of their different associations with the three structural components. Therefore, it is difficult to determine whether the Love Scale measures one global attitude of love or three distinct components of love.

b) Six Styles of Love

Another contemporary theory of love is the typology developed by Sociologist John Lee (1973). In his approach, each variety of love is likened to a primary or secondary color. According to Lee, there are three primary styles of loving: *eros* (passionate love), *ludus* (game-playing love), and *storge* (friendship love). In the same way, all other types are a mixture or combination of the three primary types, Lee contends all other styles of love represent a combination of these three primary

styles. The three most important compounds or mixture of the three primary styles of love are *pragma* (practical love), *Mania* (possessive/dependent love), and *agape* (all-giving, selfless love).

Measurement

Lee's classification scheme inspired the development of several measurement instruments. The most well known and commonly used is the 42-item Love Attitudes Scale (7 items for each of the six love styles) designed by Hendrick and Hendrick (1986). The scale attempts to measure all concepts of love so that each individual may be assigned a quantitative profile with some magnitude on each of the six love scale. Sample items from the Love Attitude Scale are shown in Table 2.

Table 2. Sample Items from Hendrick and Hendrick's (1986) Love Attitude Scale

EROS

1. My partner and I were attracted to each other immediately after we met.

LUDAS

2. I try to keep my partner a little uncertain about my commitment to him/her.

STORGE

3. It is hard for me to say exactly when our friendship turned into love.

PRAGMA

4. I considered what my partner was going to become in life before I committed to myself to him/her.

MANIA

5. When things aren't right with my partner and me, my stomach gets upset.

AGAPE

6. I try to always help my partner through difficult times.

c) Passionate and Companionate Love

Other voices were also raised relatively early. Berscheid and Walster¹(1974) have contrasted liking with what they call passionate love. One distinguishing factor, they argue is, the role of fantasy. Whereas liking may be based on a rather direct exchange for rewards between the participants, passionate love is often aroused by one's imagined fantasies – rewards are expected rather than actual. This then is developed more fully by Walster and Walter (1978) proposing two major types of love: passionate and companionate love. Its approach may be dubbed the “either/or theory of love.” One can be in either a state of passionate love or a state of companionate love, but not in both states at the same time.

More recent theorizing tends toward a “both/and” rather than an “either/or” approach to passionate and companionate love. Passionate love is defined as “a state of intense longing for union with another” (Hatfield & Rapson, 1993, p. 5). It is a state of profound physiological arousal. Companionate love, on the other hand, is “the affection and tenderness that we feel for those with whom our lives are deeply entwined” (Hatfield & Rapson, 1993, p. 9). Hatfield (1988) noted that people “are capable of passionate/companionate love and are likely to experience such feelings intermittently throughout their lives” (p. 193). Although the two types of love are still viewed as different, the difference is “one of emphasis rather than absolute differences” (p. 207).

¹ Walster was the last name before Elaine Hatfield got married.

Measurement

Hatfield and Sprecher (1986) developed the Passionate Love Scale to measure the cognitive, emotional and behavioral components of such longing for union. The scale consists of 30 items and is unidimensional in measuring passionate love as a whole without delineation of subscales. Of particular interest is the fact that the scale contains a number of items that are directly and indirectly relevant to the sexual aspect of passionate love. Sample items from the Passionate Love Scale are shown in Table 3.

Table 3. Sample Items from Hatfield and Sprecher's (1986) Passionate Love Scale

-
- 2. I would feel deep despair if _____ left me.
 - 5. Sometimes I feel I can't control my thoughts; they are obsessively on _____.
 - 6. I feel happy when I am doing something to make _____.
 - 7. I would rather be with _____ than anyone else.
 - 8. I'd get jealous if I thought _____ were falling in love with someone else.
 - 10. I yearn to know all about _____.
 - 11. I want _____ physically, emotionally, and mentally.
 - 17. I sense my body responding when _____ touches me.
 - 24. I eagerly look for sign indicating _____'s desire for me.
 - 29. I possess a powerful attraction for _____.
-

According to Tzeng (1998), Hatfield's model does not address individual difference in background characteristics and their impact on the intensities of each component expressed in any given relationship. For example, a relationship may possess strong cognitive and emotional components of love but few behavioral expressions of love. These variations in background characteristics may become short-term or long-term stressors that may lead to unhealthy relationships.

d) Triangular Theory of Love

Another social scientist, Robert Sternberg (1986) has conceptualized love in terms three basic components that form the vertices of a triangle: intimacy, passion, and decision/commitment (see Figure 1). The intimacy component is primarily emotional or affective in nature and involves feelings of warmth, closeness, connection, and bondedness in the love relationship. The passion component is motivational and consists of the drives that are involved in romantic and physical attraction, sexual consummation, and related phenomena. The decision/commitment component is largely cognitive and represents both the short-term decision that one individual loves another and the longer term commitment to maintain that love.

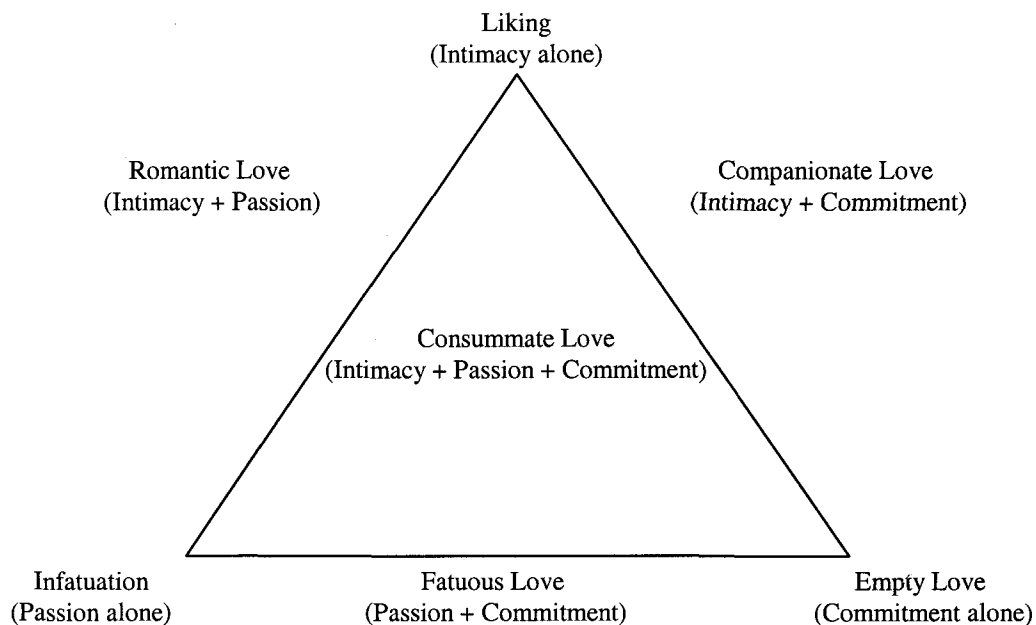


Figure 1. Sternberg's Triangular Theory of Love (1986)

i) Types of Love Relationships

The mix of these three basic components of love in varying proportions created eight different types of love (summarized in Table 4). *Nonlove* (no intimacy, passion, or decision/commitment) describes casual interaction that is characterized by the absence of all three love components. Most of personal relationships, which are casual associations, can be defined as *nonlove*. *Liking* (intimacy alone) relationships are essentially friendship. They contain warmth, intimacy, closeness, and other positive emotional experiences but lack both passion and decision/commitment. *Infatuation* (passion alone) is an intense, “love at first sight” experience is characterized by extreme attraction and arousal in the absence of any real emotional intimacy and decision/commitment. In *empty love* (decision/commitment alone) relationships, the partners are committed to each other and the relationship but lack an intimate emotional connection and passionate attraction. This type of love is often seen at the end of long-term relationships (or at the beginning of arranged marriages). *Romantic love* (intimacy and passion) consists of feelings of closeness and connection coupled with strong physical attraction. *Companionate love* (intimacy and decision/commitment) is essentially a long-term, stable, and committed friendship that is characterized by high amounts of emotional intimacy, the decision to love the partner, and the commitment to remain in the relationship. This type of love is often seen in “best friendships” that are nonsexual or in long-term marriages in which sexual attraction has faded. Couples who experience *fatuous love* (passion and decision/commitment) base their commitment to each other on passion rather than on

deep emotional intimacy. These “whirlwind” relationships are typically unstable and at risk for termination. Finally, *consummate love* (intimacy, passion and decision/commitment) results from the combination of all three components. According to Sternberg, this is the type of “complete” love that many individuals strive to attain, particularly in their romantic relationships. Because the three basic components of love occur in varying degrees within a relationship, most love relationships will not fit cleanly into one particular category but will reflect some combination of categories.

Table 4. Sternberg’s (1986) Typology of Love Relationships

| Kind of Love Relationships | Love Components | | |
|----------------------------|-----------------|---------|---------------------|
| | Intimacy | Passion | Decision/Commitment |
| Nonlove | Low | Low | Low |
| Liking | High | Low | Low |
| Infatuation | Low | High | Low |
| Empty love | Low | Low | High |
| Romantic love | High | High | Low |
| Companionate love | High | Low | High |
| Fatuous love | Low | High | High |
| Consummate love | High | High | High |

ii) Measurement

Sternberg developed a 45-item scale to assess the three basic elements of love. The intimacy subscale consists of 15 items designed to reflect feelings of warmth, support, self-disclosure, trust, and other aspects of intimate connection. Examples

include “I receive considerable emotional support from _____,” “I feel close to _____,” “I feel that I can trust _____,” and “I share deeply personal information about myself with _____.” The 15 items that make up the Passion subscale are designed to capture the more intense, physical, and exciting elements of romantic relationships, including “Just seeing _____ excites me,” “I especially like physical contact with _____,” “I adore _____,” and “I fantasize about _____.” The Decision/Commitment subscale contains 15 items that assess feelings of stability, commitment, and permanence. Examples include “I view my commitment to _____ as a solid one,” “I have confidence in the stability of my relationship with _____,” “I plan to continue in my relationship with _____,” and “I will always feel a strong responsibility for _____.”

The scale provides a reliable and internally valid measure. Internal validation included three forms of statistical analyses: internal consistency, intercorrelations between each pair of the three components subscales, and factor analysis of all 45 measurement items. The scale provides high internal consistency reliabilities (all scale alphas are above .90) and moderate intercorrelations among the intimacy, passion, and commitment ratings (correlations between .46 and .73 for the importance ratings and between .36 and .60 for the characteristicness ratings). External validation was evaluated in terms of the correlations between the Sternberg scale and the Rubin Love and Like scales and also the correlations between the three components and an overall satisfaction question. These correlations are all very high. Additionally, factor

analysis of the three components was performed, yielding a three-factor solution that explained 60 percent variance with all loadings being greater than .50.

Cross-cultural aspects of romantic love

Dion and Dion noted (1996) that love must be understood within a cultural context. One of their meta-perspectives for examining love was that of individualism versus collectivism, and they argued that it is within cultural-level variables such as individualism/collectivism that romantic love can be studied most usefully.

However, current exploration of ancient love themes indicate that love for another might have predated documented consciousness of a self. For example, Cho and Cross (1995) drew on Chinese literature dating back 500 to 3,000 years ago to posit that phenomena such as passionate love, devoted love, obsessive love, casual love, and free mate choice were known and experienced during those eras. To explore the current existence of these love styles, the authors assessed love attitudes of Taiwanese students living in the United States using the Love Attitude Scale (Hendrick & Hendrick, 1990). Factor analyses revealed six different love styles but not the usual six factors. Their factors reflected Taiwanese culture such that an Eros (passionate love) and Agape (altruistic) combination became “Romantic Considerate Love,” whereas an Agape and Pragma (practical) combination became “Obligatory Love.” Overall, however, there were many similarities between the Taiwanese students and American samples.

In a study comparing Hong Kong, Chinese, and British respondents on both love styles and the Chinese concept of *yuan* (predestined and fated love), Goodwin

and Findlay (1997) discovered, whereas the Chinese respondents more highly endorsed *yuan* as well as altruistic and pragmatic love styles, the British sample also agreed relatively highly with a number of the *yuan* items. Therefore, it is interesting to consider for all the attempts to discover whether Western notions of passionate love can be found in Eastern cultures, there remains a fascinating question about whether Eastern notions of fatalism as well as duty and obligation also can be found in Western concepts of love.

Doherty, Hatfield, Thompson, and Choo (1994) directly compared European Americans, Japanese Americans, and Pacific Islanders who residing in Hawaii on various dimensions of love and relationships. The groups did not differ in either passionate or companionate love, and attachment was similarly related to love for all of the groups. Cultural similarities also were found by Sprecher et al. (1994), who explored American, Russian, and Japanese styles of love. Although the groups exhibited some differences-Americans more endorsing of a secure attachment style, Russians more willing to consider marrying without love, and Japanese less endorsing of romantic beliefs – “ the young adults from the three countries were similar in many love attitudes and experiences” (p. 363).

Taking a somewhat different approach, Moore (1998) underscored an essential conservatism that is one differentiating aspect between China and the West. Relying on interviews and written narrative data, Moore documented the importance of love along with the importance of propriety, seriousness, and parental approval, and the author proposed that Chinese and American youths, for example, differ not so

much in motives for relating as in the relative importance of those motives (consistent with Cho & Cross, 1995, and Goodwin & Findlay, 1997). Even an arranged marriage in Sri Lanka, something seemingly discrepant from romantic love, can be implemented in ways congruent with love (deMunck, 1998).

Research by Contreras, Hendrick, and Hendrick (1996) confirmed cross-cultural similarity of love orientations. In a study of Mexican American and Anglo couples, results indicated only modest love attitude (and sexual attitude) differences among the groups. However, the Anglo American group, the bicultural group, and the Hispanic-oriented group did not differ in passionate, friendship-oriented, or altruistic love, and the groups also were similar in relationship satisfaction. Other research has shown modest cultural differences in love attitudes. Murstein, Merighi, and Vyse (1991) found that French college students were more agapic on the Love Attitude Scale, whereas American students reported more manic and friendship love.

Gao (2001) examined Stenberg's triangular theory of love in a cross-cultural context. Gao examined intimacy, passion, and commitment of Chinese and American romantic relationships. Specifically, partners in romantic relationships in the U.S. reported significantly higher passion than do partners in romantic relationships in China. However, the amount of intimacy and commitment did not vary cross-culturally. From the results of the study, Gao found that Sternberg's conceptualization of love can be useful in understanding and explaining romantic relationships across cultures.

Overall, much of the current close relationship literature is consistent with the conclusions of Jankowiak and Fischer (1992) in their highly cited study of the Standard Cross-Cultural Sample. They concluded, "Romantic love is a near-universal" (p. 154), a stance also assumed by Hatfield and Rapson (1996), who tentatively concluded, "Throughout the modern world, people turn out to be surprisingly similar in the way they experience passionate love" (p. 88).

In considering current love research, it becomes clear that neither a strict evolutionary interpretation nor a strict, cultural social constructivist interpretation is most helpful. Rather, as Jankowiak (1995) observed, "Romantic passion is a complex multifaceted emotional phenomenon that is a byproduct of an interplay between biology, self, and society" (p. 4).

Intercultural Romantic Relationships: Who Dates?

In contemporary societies, many young people do meet, fall in love, feel sexual desire, and live together or marry. However, in traditional cultures, it was the lovers who had to adapt, not the society (Hatfield & Rapson, 1996). While individual happiness mattered little, what are important were the well-being of the family and the maintenance of social order. In China, for an example, lovesick couples, forbidden to marry, often followed the rules even though they preferred to defy convention. However, there are examples of couples ritually drowning themselves in wells of the parents who had refused to sanction the marriage. Some Chinese lovers vowed to jump off a cliff hand in hand (Mace & Mace, 1980). To many contemporary young people, such tales of forbidden romance may seem ridiculous. But to some

young Asian romantic couples, who know that passion had little chance of flowering into marriage, the tales are transcendent tragedies.

Furthermore, throughout history, cultures have varied markedly in who possessed the power to select romantic, sexual, and marital partners. In the past, parents, kin, and the community usually had the power to arrange things as they chose in most societies. Marriage was assumed to be an alliance between two families (Dion & Dion, 1993). Families might also consult with religious specialists, oracles, and matchmakers (Rosenblatt & Anderson, 1981). When contemplating a union, parent, kin, and their advisors were generally concerned with a variety of background questions: person's status, caste, family background, religion, economic position, family property, dowry, education, social status, and so on (Rosenblatt & Anderson, 1981). Today, in many parts of the world, parents, kin, and matchmakers still arrange their children's marriage. Arranged marriages are common in India, in the Muslim countries, in sub-Saharan Africa, and in cultural enclaves throughout the remainder of the world (Rosenblatt & Anderson, 1981). Sometimes, young people are forbidden to marry foreigners. In Thailand, traits are often forbidden to marry Chinese, Indian, Japanese, Mons, or Malay suitors (Bumroongsook, 1992). Similar asset and liabilities have been found to be important in a number of countries such as India, Japan, Morocco, and Thailand (Hatfield & Rapson, 1996).

Young generation of immigrants tend to face problems in selecting their mates. Hanassab and Tidwell (1998) examined the young Muslim Iranians and young Jewish Iranians regarding their attitudes toward intramarriages and intermarriage. Many

Iranians moved to the U.S. due to the revolution of 1978-1979. Their exposure to American standards has generated many pressures. In particular, many of these families are faced with decisions involving the extent to which they will adapt to the American way of life or retain their original culture and traditions. These cultural differences create complications for young Iranians, especially with regard to their attitudes about dating and marriage, and their actual behavior in this sector of their lives. The issue of dating and intimate relationship is a sensitive one among Iranians, especially young women. Western and Iranian values with respect to dating and intimate interaction contrast strongly.

Resnik (1933) stated those who marry interculturally are somewhat rebellious, detached, adventurous, or emancipated. Similarly, Romano (1997) describes six categories of personal tendencies of people who seem to be attracted to intercultural marriages: (1) Nontraditionalists, who feel detached enough from their own culture or peer group to be able to decide for themselves the course of their life; (2) Romantics, who see romance as an international adventure; (3) Compensators, who feel incomplete and believe a foreigner will fill the blank; (4) Rebels, who consciously or unconsciously marry cross-culturally as a form of protest against their own culture; (5) Internationalist, who grow up in countries different from their own, and feel that they do not belong completely to any one culture (usually the children of diplomats, missionaries, military personnel, academics or international business executives); (6) Others, who are somewhat dysfunctional types whose goals are more calculated and self-serving.

The feelings and experiences of marginality – of being different from others, or of not belonging, or of social isolation for a significant period in childhood or even early adulthood – is also a factor motivating a person to marry outside his or her culture (Khatib-Chahidi, Hill & Paton, 1998). An example from the case of interfaith marriage, according to Schneider (1989), liberal Christians feeling of being alienated can bring with it a desire to link oneself to a person whose background express quintessential alienation such as a Jew.

As discussed above, much of the research of who enters into intercultural romantic relationships concentrates on marital relationships. While this research is useful, there is little work on who dates interculturally. It is a mistake to assume that the characteristics of those who marry interculturally are the same as those who interculturally date. There are distinct differences between the tendency to marry and the tendency to date. Fujino (1997) points out that more individuals are likely to interdate than to intermarry. This higher willingness to interdate may occur because dating is a less serious relationship than marriage. Those who are dating are not expected to plan for children, combine household budgets or engage in any of dozens of other activities married couples must handle. Therefore, one who dates across his or her culture, race or ethnicity can be seen as “sowing wild oats” rather than making a permanent relationship with family and cultural, racial or ethnic identity ramifications.

Tucker and Mitchell-Kernan (1995) report that over half of the African Americans, Latino Americans, and European Americans in the survey in southern

California date members of other ethnic groups. Their survey indicates that interethnic dating is associated with young males who are highly educated, and with people who perceive the possibility of marrying with members of other ethnic groups. Their data also suggest that African Americans and Latino Americans are more likely to engage in interethnic dating than are European Americans.

Alba (1976) argues that the strength of individuals' ethnic identities is related to their outgroup dating and marriage. Specifically, he contends that those with weaker identities have a greater tendency to date/marry out of their group than do those with strong identities.

Chung (1990) applies Cross' (1970) model of ethnic identity transformation to explain interethnic dating. Cross argues individuals go through four stages of ethnic identity transformation: (1) Preencounter, which individuals view the world as being against their ethnic group and behave in ways which devalue their ethnic identity; (2) Encounter, which individuals become aware of what it means to be a member of their ethnic group and begin to validate themselves in terms of their ethnic identity; (3) Immersion-Emersion, which individuals reject nonethnic values and immerse themselves in their ethnic culture; and (4) Internalization, which individuals develop a self-confident and secure ethnic identity and, at the same time, are comfortable expressing nonethnic interests. Chung states that individuals in the preencounter and internalization stages are more likely to date out of their ethnic group than are individuals in the encounter or immersion-emersion stages.

Another factor that influences the decision to date people from different background is the degree to which they are perceived to be typical members of their culture. Gudykunst and his associates (1991) reported that individuals in intercultural romantic relationships see their partners as atypical of their cultures. The Japanese respondents, for example, view their North American partners as different from other North Americans and as possessing some Japanese characteristics.

Characteristics of Romantic Relationships

Initiating and maintaining relationships with others is one of the most necessary and challenging functions of human survival. Relationships can provide a sense of belonging, feelings of warmth, and help in coping with difficulties. Unfortunately, dealing with others can also lead to conflicts, disappointment, and jealousy. Whether they are good, bad, or a mixture of both, relationships are a central part of the human experience.

The analysis of personal relationships has a long history, dating back as far as Aristotle. In the 20th century, academics in several different disciplines have conducted a substantial number of empirical investigations on close relationships.

Mate selection and interpersonal attraction theories refer to loosely to the wide range of behaviors and social relationships that individuals engage in prior to marriage. Both theories provide factors that are thought to lead to short- or long-term pairing.

Love/romantic relationship

With the exception of a few studies, such as Levenson and Gottman (1983), the study of romantic relationships has yet to yield more insight on how researchers

can study couple interactions in the laboratory by engaging participants in naturalistic interactions. Perhaps as a consequence of the paucity of systematic research of romantic couples in general, the literature concerning sojourner's romantic couples in particular is very limited. There are a few interesting articles on the love-styles most endorsed by certain subgroups of Latinos and on how Mexican-Americans conceptualize love and romantic satisfaction (Castañeda, 1993; Contreras, Hendrick, and Hendrick, 1996; Leon, Parra, Cheng, and Flores, 1995; Parra et al., 1998). With the exception of these articles, the literature on sojourner's romantic relationships is practically nonexistent.

There are various ways of trying to classify close relationships, none of which are entirely satisfactory on their own or mutually exclusive. One way is in terms of kinship (such as wife and husband) and friendship (such as close or best friend). There are several problems with this simple distinction. It excludes people who are not married but who may have a strong or developing emotional commitment to one another, such as couples in love. A second way of classifying relationships is in terms of romantic relationships and friendships. Once again these two categories are not necessarily mutually exclusive as your lover could also be your closet friend. A third and more recent way of categorizing close relationships is in terms of same- and cross-sex relationships. While most romantic relationships are cross-sex ones, most close friendships are same-sex ones. Nonetheless, there are substantial numbers of same-sex romantic relationships and cross-sex close friendships.

Motivators: Mate selection and interpersonal attraction theory

What factors bring people together to communicate and begin the process of building a relationship? People are drawn to each other for many reasons. Many people believe that love is one of the most highly desirable characteristics in choosing a mate. Some might think of physical attractiveness when someone says they are attracted to a person.

Sometimes certain forces are set in motion that cause people to feel particularly attracted to another person. The decision to date or become a boyfriend or girlfriend with a stranger is not the same as the decision to marry such a person. A marriage with another requires a lifelong commitment to live with a person who is culturally different (Hendrick & Hendrick, 1992; Knapp & Vangelisti, 2000). However, when one chooses to marry a person, the choice, like the decision to date, is often based on the same reasons. On the basis of the research reviewed, the following conditions seem to be most likely to provide a basis for attraction across most situations: (a) similarity; (b) propinquity; (c) mere exposure; (d) social isolation and psychological stress; (e) physical attractiveness (f) personal liking. In some cases, however, the effects of any one of these factors may be neutralized or overridden by one or more of the other factors (Knapp & Vangelisti, 2000). Situational constraints and pressures will also affect the attraction process (Byrne, 1971).

a) Similarity

The phrase birds of a feather flock together may remind people of important sources of attraction – similarity. Using a technique developed by Byrne (1971),

many studies confirm the fact people often desire and select friends, dating partner, spouses who are similar to them. They also tend to like each other. The strong relationship between similarity and attraction has been found for a variety of attributes. These include similarity in morals, economic background, social class, occupation, interests, goals, the way of expressing ideals, attitudes, and appearance. According to Scott and Schwartz (1994), people who share a similar social-class background tend to share common interests, goals, lifestyles, and general behavior. These kinds of compatibility of interest and general homogamy are the bases of intimate relationships. Several studies conducted over the years have found that people tend to select partners who are religiously similar to themselves (e.g., Kerckhoff, 1976; Glenn, 1982; Shehan, Bock & Lee, 1990). People in interracial marriages, for example, report being attracted to their partners because they hold similar values and have similar interests (Kouri & Lasswell, 1993). This similar values and interests led to overall compatibility. The following comment was given in the interview by Kouri and Lasswell (1993), “We came from totally different backgrounds with nothing in common but we have the same values, the way we think, goals and what’s really important in life (p.248).”

Furthermore, Schachter (1959) concluded from his study that people tend to affiliate to make social comparison with others when they are in a somewhat new and unfamiliar emotional state and/or when the overall situation is ambiguous. Indeed, people will often choose to be with others who are “in the same boat.” For example, in the class, if a course is particularly difficult and the professor’s tests for the course

are difficult and unpredictable, students might become a bit anxious and seek out other classmates in the course to talk with about the material. They might organize a study group to prepare together before every course exam. In other words, people might affiliate with other people who are in a situation and emotional state similar to their own.

There are at least three underlying reasons why people seem to gravitate to similar others: People assume similar characteristics will reflect a common view of the world; if people share a lot in common, interaction of people will require less hard work. Those who are dissimilar may ask people to justify their beliefs and force them to keep track of referents that people can assume with similar others (Knapp & Vangelisti 2000).

Therefore, similarity preference is easily explained psychologically because similarity allows two individuals who have a greater sense of commonality to more easily empathize with each other. At the social level, the similarity preference is also understandable because similarity more fully maintains the social and cultural patterns of both the couple and those people who associate with them and this creates a flow of social intercourse which is eased for everyone.

Interestingly, Knox, Gibson, Zusman, and Gallmeier (1997) conducted the research on why college student relationships end. Almost half of 185 undergraduate respondents noted that “too many differences/different values” was the reason their relationship ended.

As mentioned above mate selection theorists (e.g., Kerckhoff & Davis, 1962) and reinforcement theorist (e.g., Byrne, 1971) have frequently assumed attitudinal dissimilarity undermines satisfaction and stability of romantic relationships in general; however, romantic relationships in intercultural settings have a different view of the “opposite attract” – dissimilarity. Khatib-Chahidi, Hill and Paton (1998) studied initial attraction for twenty women who entered into intercultural marriage. The study showed that one-third of the women were drawn to their future husbands because they were ‘different’. Although this difference was variously defined, it implied personal qualities in the future spouse which either compared favorably with those of known others, or complemented some aspect of the subjects’ own personality where she was lacking. Some women also found their own countrymen rather boring. They were attracted to a culturally different approach in the way in which men related to women and considered foreign men different and exciting. Their study also suggested qualified support for the complementarity principle in long-term relationships explained by Kerckhoff and Davis (1962) which shows that people choose relationships in which their basic needs can be mutually gratified, often resulting in a pairing of apparent opposites.

According to Gaines and Brennan (2001), attitudinal similarity per se is not necessarily the only, or even the primary, basis for interpersonal attraction or relationship development. Intercultural relationships in particular may be satisfying for some individuals precisely because such relationships give individuals the opportunity to learn about belief systems other than those with which individuals

were raised from members of ethnic groups other than those within which individuals were raised.

b) Propinquity

Propinquity means proximity or nearness, and it is used in attraction/affiliation research to refer to spatial proximity. Spatial proximity is a necessary condition for affiliative behavior to occur (Hendrick & Hendrick, 1992). People often form relationships with others who live or work in close proximity. Several investigators have collected data which indicate that students tend to develop stronger friendships with those students who share their classes, or their dormitory or apartment building, or who sit near them, than with those who are geographically located only slightly farther away (Byrne & Buehler 1955; Byrne, 1961; Nahemow & Lawton 1975). There is extensive evidence that propinquity within residential area or housing units is associated with friendship choices and marital selection (Udry, 1971).

Segal (1974) looked into Maryland State Police trainees' friendship choice, in the hope of finding out which are the most important factors in determining who makes friends with whom. Segal found that "mere" proximity had a stronger effect on attraction than did a host of other characteristics people commonly assume are associated with attraction. Segal found that the closer together in the alphabet the first letters of the last names of any two trainees were, the more likely it was that they would name each other as being one of their closest friends on the force. Since trainees were assigned to seats in classrooms and to rooms on the basis of the

alphabetical order of their last names, proximity in the alphabet was a good index of actual proximity of the trainees.

In addition, proximity has been found to be an important factor in mate selection. A dozen studies have demonstrated that the closer eligible men and women live, the more likely they are to meet and to marry. For example, Clarke (1952) found that more than half of the people who marry in Columbus, Ohio, live within 16 blocks of one another at the time of their first date together.

Conversely, people may try to obtain close proximity to people they have been attracted to, for example, two students living in two separate dorms who agree to share an apartment. Obviously, increasing exposure by decreasing distance allows people to obtain more information more quickly about another person (Knapp and Vangelisti, 2000).

According to Festinger, Schachter and Back (1950), there are two types of propinquity: actual physical distance and functional distance. They studied both components of propinquity by assessment of the graduate and married student housing at the Massachusetts Institute of Technology. Physical distance is actual physical nearness or geographical distance, which can be measured. It plays a major role determining whether or not passive contact will occur. According to the study, the smaller the physical distance the greater the likelihood of knowing neighbors and communicating with each other. Meanwhile, functional distance shows the probability of two individuals coming into contact. It is a function of objective physical distance but also design issues such as common facilities in an apartment

building including nearness of one individual to stairways, mail box, laundry room, elevator, etc. that increase the likelihood that the two individuals will meet and, probably, communicate. Although the data from the study presented suggests that functional distance is an essential consideration, the study has not been able to measure it as a variable.

Nahemow and Lawton (1975) observed similarity and propinquity by examining friendship development in a housing project in New York City. The study showed proximity and similarity of background such as race and age were important predictors of friendship formation. They also found when a sample formed a friendship with someone in a different age or racial group, that person was apt to reside physically close to the subject. The author assumed propinquity may be less necessary when people are similar, but may be essential when people develop friendships with others in different backgrounds.

It seems apparent the closer the proximity of the person is to someone, the more intensely he or she feels about that person. Dozens of studies document the closer we are to an individual, the more likely we are to end up being friends, dating, or marrying the individual. What proximity appears to allow, and what distance prevents, is an opportunity to obtain information and accumulate experience regarding the rewards or punishments people are likely to receive from the other person.

In looking at intercultural marriage and dating settings, Spickard (1989) and Barron (1946) observed propinquity played an important role in the incidence of

intermarriage. Barron argues other social and demographic factors are ineffective without propinquity and similarity of culture. Fujino (1997) also found propinquity to be the strongest predictor of interracial dating. According to Golden (1959), propinquity was a factor in explaining mate selection for his intermarried sample. He mentioned that propinquity in terms of employment, commercial transactions, education, recreation, and voluntary organizations was associated with interethnic marriage. The study also found that propinquity, especially in residential, occupational, educational pursuits and leisure situations, is an important variable in mate selection (Bell, 1967; Tseng, McDermott, & Marezki, 1977).

Clearly, it is more difficult to interculturally date if one's social network primarily consists of one's own culture, race, or ethnicity. When people are living in or visiting another culture, they are in close proximity to potential dating or marriage partners from the host culture and far away from any individuals from their home culture (Char, 1977). The cultural and social attitudes of individuals who live a culturally segregated lifestyle may be irrelevant in predicting intercultural dating since such a lifestyle provides little, if any, opportunities for interdating.

c) Mere exposure

A great deal of research verifies the fact people are more likely to develop relationships with others they are exposed to more often (Hendrick & Hendrick, 1992). It may be that people share the same office, attend the same classes, occupy the same dormitory room, or come from the same neighborhood.

Zajonc (1968) examined the hypothesis: "mere repeated exposure of the individual to a stimulus is a sufficient condition for the enhancement of his attitude toward it" (p. 1). It was a challenging idea in the 1960s because it meant "attitudes can be formed based merely on the frequency with which one encounters the object of the attitude, with frequency increasing liking" (Bargh & Apsley, 2001, p. 5).

To prove his idea, Zajonc conducted experiments in which volunteer subjects were exposed to stimuli presented at different times and rated their attitudes toward these stimuli. The results were completely consistent with Zajonc's basic hypothesis that repeated simple exposure was a sufficient condition for attitude enhancement. More studies on the mere exposure effect proved the hypothesis of Zajonc. Two experiments of Saegart, Swamp and Zajonc (1973) produced evidence that mere exposure increased liking under either pleasant or unpleasant circumstances, defending the theory from criticism that mere exposure was limited to pleasant situations. Harrison and Fiscaro (1974) and Zajonc, Reimer and Hausser (1973) found the mere exposure effect occurred with animal subjects as well as with people.

Over time, this mere exposure effect was applied to the liking of people, music, art, and food to which people have had repeated exposure. The theory of mere exposure has been especially explored in advertising. For example, people are more likely to purchase a brand name product that is more familiar to them by repeated exposure through advertisement (Janiszewski, 1993).

The more often people are exposed to a stimulus, the more positively they tend to evaluate it. The more people come in contact, the more likely they are to

become familiar with one another (Brocker & Swap, 1976) or even to be attracted to one another (Moreland & Zajonc, 1982). Further, Festinger et al (1950) proposed people tend to like and be influenced most by people they encounter and talk with frequently. Physical proximity has a high impact on spontaneous face-to-face communications (Kraut, Egidio & Galeher, 1990). That is, people who live, study or work in proximate locations run into one another at the elevator, mail box, stair, water cooler, copy machine and so on. These casual encounters increase attraction. Indeed, mere frequency of exposure can create a degree of attraction with involvement of propinquity.

d) Social isolation and psychological stress

Researchers have amassed a great deal of evidence that people tend to like those who make their lives more pleasant on a day-to-day basis, those who cheer up them, and those who reduce their loneliness and stress. Social isolation and psychological stress have been found to have a strong impact on developing relationships (Kiesler, 1978). People find it upsetting or terrifying to be isolated or stressful events. Those who, by their mere presence, soften these feelings, come to be liked.

Social isolation is merely unpleasant. People do not like to be alone for any length of time. Some individuals affiliate because they are lonely. Loneliness means different things to different people. Loneliness is a subjective psychological state in which people perceive an inadequacy in interpersonal relationships (Marangoni & Ickes, 1989). According Peplau & Perlman (1979), it is influenced by the difference

between an individual's desired level of interaction and his or her actual level of interaction. Loneliness involves a real or perceived deficit in social relationships (Mikulincer & Segal, 1990). Changes in marital relationships and family structures, as well as the increasing mobility and anonymity of modern society, increase loneliness, though it can also be related to a lack of social skill. It is evident that others, simply by their sheer physical presence, provide an important reward: they stave off loneliness and social isolation.

Similarly, there is considerable evidence that individuals who are placed in a stressful situation become less disturbed physiologically when there are people present than when there are not. Indeed, it is suggested when people are lonely or under stress, the presence of others is extremely rewarding. It is no wonder then people often come to like or to love those who make their hard times a little better. Specifically, upon arriving, many international students lose the shared identity and much of the support that comes with proximity to family and peers (Arredondo-Dowd, 1981; Pedersen, 1991). As a consequence, international students often feel alienated as they struggle with the tasks of developing new relationships and rebuilding a support system (Hayes & Lin, 1994; Schram & Lauver, 1988). Indeed, there seems to be a general consensus the international students are a high-risk group who have more psychological problems such as personal depression, homesickness, loneliness, stress, frustration, culture shock and so on than their U.S. peers (Dillard & Chisolm, 1983; Johnson, 1971; Klineberg & Hull, 1979).

e) Physical attractiveness

The first thing people notice about others is usually how they look, and this tends to form the basis of the first evaluation people make. Although people might think that evaluating someone on the basis of their physical attractiveness is a superficial strategy, evidence shows that people often do. Physical attractiveness, particularly of members of the opposite sex, is of considerable interest in everyday life and probably always has been in human history.

In a study by Dion, Berscheid and Walster (1972), attractive people were rated as being happier and more successful, as having a better personality, and as being more likely to get married than less attractive people. With attractiveness such an asset, those who spend a lot of money on cosmetics and fashion could be making a real investment in their future.

There is considerable evidence people who are in relationships such as spouses and dating couples tend to be more similar in their level of beauty than random pairs, supporting the matching hypothesis (Walster, Aronson, Abrahams, & Rottmann, 1966). The matching hypothesis is that people at about the same level of social desirability, including physical attractiveness, tend to pair off: ugly with ugly, average with average, and beautiful with beautiful. There is also evidence that people prefer to associate with attractive people and attribute good traits to them. As a result of stereotypes about them, beautiful people sometimes do have more rewarding interactions.

Hatfield and her students (1984) interviewed over 1,000 dating couples, 100 newlyweds, and 400 elderly women, asking them most critical things in their relationships. Although those three groups were very different in age and life experiences, they were significantly similar in what they thought was the most important in love relations or marriage. Appearance (having mates who are attractive and take care of their appearance) is listed as one of these assets.

f) Personal liking

Presently in the United States marriages are based on the ideal of romantic love and, therefore, the most commonly accepted reason for dating would appear to be emotional attraction (Bell, 1967). Young couples are emphasizing love more in choosing a mate throughout the world. David Buss (Buss et al, 1990) carried out the largest cross-cultural study on 9,474 people from thirty-seven different countries in order to identify the personality characteristics they most desired in a potential mate. Research suggests that today both young men and women across the world consider mutual attraction (love) to be a prerequisite for courtship and marriage. Certainly, there are exceptional countries which regard love as not indispensable in settling on a mate. Interestingly, although people choose their partner whom they fall in love, two individuals can agree on what the term love means (Romano, 1997).

Research by Lampe (1982) on interethnic dating (European American-African American, European American-Latino American, African American-Latino American) in the United States indicates the major motivation for interethnic dating is the same as for intraethnic dating, namely, personal liking for the other person. In fact, in

Lampe's study, no other reason for interethnic dating comes close to personal liking in terms of the percentage of respondents giving it (personal liking is reported by 60 percent of the respondents; no other reason is given by more than 16 percent of the respondents).

Byrne (1969) developed the Reinforcement-Affect Model of Attraction.

According to the model, likes and dislikes are based on whether positive or negative feelings are aroused. People like any rewarding stimulus because of their positive feelings, and they dislike any punishing stimulus because of their negative feelings. When a stranger (or any other neutral stimulus) is present at the same time, that person becomes associated with the positive or negative feelings. This conditioning results in liking for any stranger associated with positive feelings and dislike for any stranger associated with negative feelings. Further, a positive attitude or emotion people feel to others which lead them to approach them and seek their companionship.

In addition, a sociologist, Alvin Gouldner (1960) proposed the *norm of reciprocity* that there is a strong tendency on the part of human beings to respond in kind to the behavior they receive: (1) people should help others who help them and (2) people should not hurt others who help them. In short, there is a tendency of reciprocal liking which people like those who like them.

Romantic commitment

When people are passionately in love, they usually wish that love could last forever. Sometimes, it does. More commonly, people's turbulent emotions cool or darken. Commitment is an important issue for many romantic couples. Individuals

often indicate difficulty in remaining committed to a romantic relationship, or in getting others to remain committed. Even marriage is no guarantee that a couple remains committed.

Most relationship researchers agree that commitment is the central component of romantic relationships. In general, commitment represents an intention to maintain relationship in the future. Commitment to close relationships has been defined generally as the decision to continue a relationship (Johnson, 1982), partners' conceptions about the future of their relationship (Surra & Hughes, 1997), or attachment to a relationship and the intention to remain in a relationship for the foreseeable future (Rusbult, 1983). Although commitment has something to do with whether, if, and how relationships continue, this cursory agreement breaks down with a deeper look at research and theory on commitment to close relationships.

Johnson (1982) defined commitment as the partners' conceptions about the future of their relationship and their motivation to continue it. Motivation to continue relationships comes from partners' feelings they want to stay in relationships, they ought to stay, and they have to stay. These three components correspond to personal, moral, and structural commitment. Personal commitment (remaining in relationship because one wants to) consists of favorable attitudes toward one's partner and one's relationship. Personal commitment is based on each partner's degree of attraction for the relationship and each other. Moral commitment (remaining in relationship because one ought to) reflects the feeling one should continue one's relationship because it is the right thing to do and is based on people's personal value in behavioral consistency,

beliefs about the stability of particular types of relationships, and feelings of obligation and responsibility for one's partner. This is related to the kind of relationship ("Once you get married, you ought to stay married") or to the other person in the relationship ("I was the one who got him into this relationship, so I ought to stay with him"). The third dimension, structural commitment (remaining in the relationship because one has to and not what one want to do) associated with the perception that there are not any good alternatives; that the relationship would be more difficult to end than to keep together; that too much has been invested in the relationship to terminate it; or that coping with reaction of others would be too difficult.

According to Rusbult (1983), on the basis of data collected primarily from dating couples, moral commitment was not a useful concept. Moral commitment is not much of a factor in dating relationships, at least not in a culture in which there is no moral nexus surrounding actors' thinking about the conditions under which they might stop dating someone. But this culture certainly does connect marriage with moral obligation. The formulation can be expressed in Figure 2:

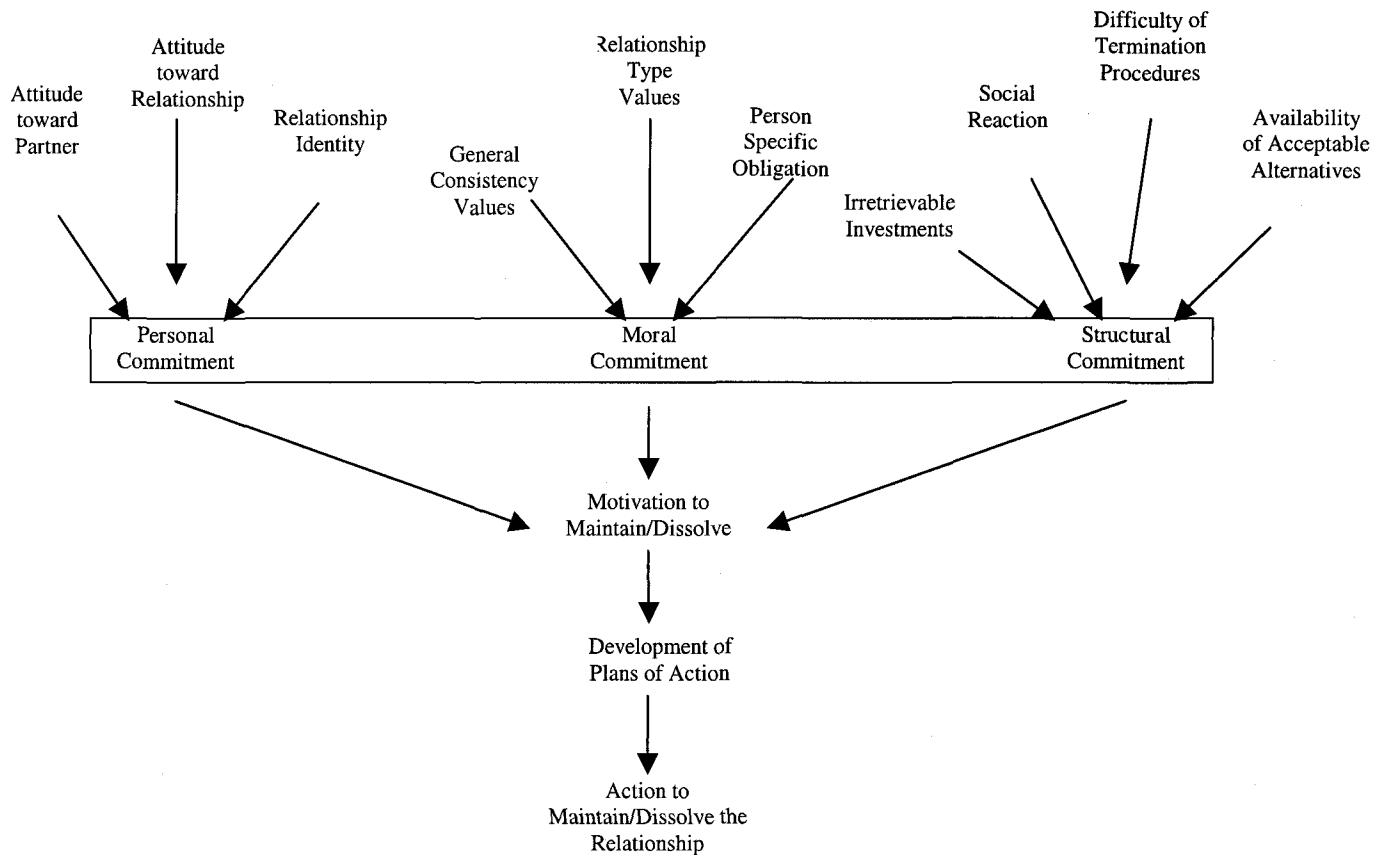


Figure 2. The Commitment Model (Johnson, 1982)

The components of commitment in Johnson's model are similar to those of Levinger (1977), who discussed the structural and moral barriers that constrain partners to stay in a relationship, the attractions that keep partners in a relationship, and the alternative attraction that may cause them to stay away from it.

Stanley and Markman (1992) view commitment as encompassing two related constructs: personal dedication to the relationship and constraints against leaving it. Personal dedication includes such factors as the degree to which the partners think of themselves as a couple and the extent to which the partners want the relationship to continue. In contrast, constraints against leaving the relationship are such factors as

the morality of leaving it, investments, and social pressure to stay in the relationship. Studies have demonstrated validity for notions of commitment consistent with dedication (e.g., Murstein & MacDonald, 1983; Rusbult, 1983) and constraint (e.g., Lurid, 1985; Udry, 1981).

Many observers (Bolton, 1961; Johnson, 1982; Rubin, 1973) have noted the commitment process is usually gradual but is accompanied by occasional upward or downward turning point. A contemporary heterosexual scenario may proceed as follows: A commitment develops after two people meet and find their interaction mutually rewarding. At first, their commitment is limited merely to the decision to continue seeing each other, with little thought about a common future. Later, if they continue to enjoy each other, the two may start wondering about their joint prospects. To the extent that the two spend time with each other, they make an "investment" in their relationship (Rusbult, 1980), which gradually grows in value. The more they come to value this investment, the more they would lose from ending their connection. After their relationship has become sufficiently valuable, therefore, one or both members may wish to assure its future stability. If either one desires an exclusive relationship, he or she will want to confirm that neither partner's alternative ties will interfere with its further progress and maintenance (Levinger, 1977). Then, this becomes the occasion of building mutual understandings and of withdrawing from competing alternatives.

Many of the research on romantic commitment have relied on some variation of equity theory and social exchange theory (Morrow & O'Sullivan, 1998). Both

theories assume that people try to maximize their outcomes, which is defined as the difference between rewards and costs.

$$\text{Outcome} = \text{Rewards} - \text{Costs}$$

The interdependence theory of the social exchange theories is put forward by Thibaut and Kelly (1978). It distinguishes relationship attraction or satisfaction from relationship dependence. People will be attracted to and satisfied with a relationship if its outcome exceeds our expected outcome for relationships in general.

$$\text{Satisfaction} = \text{Outcome} - \text{Expected outcome}$$

People will be dependent on a relationship if its outcome is greater than that of the alternatives, which may include not being in a relationship.

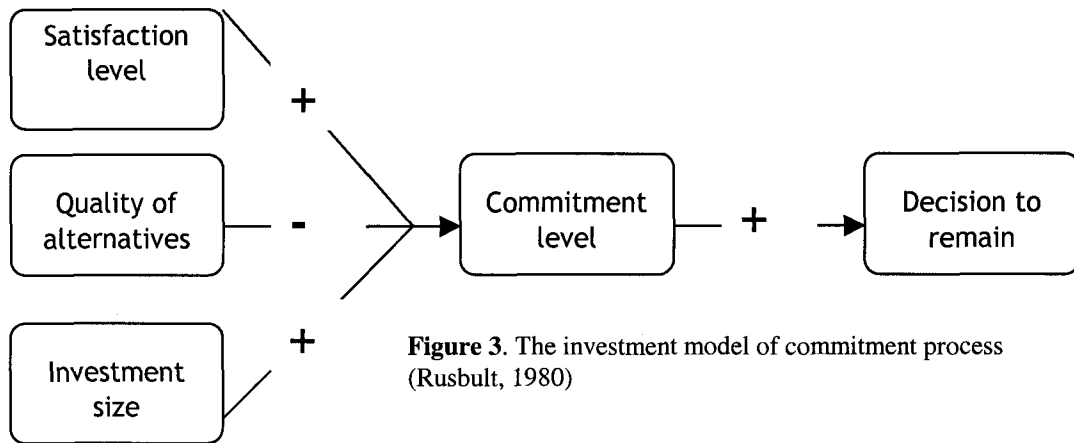
$$\text{Dependence} = \text{Outcome} - \text{Best alternative outcome}$$

The equity theory proposed by Walster (1973, 1978) postulates people try to maintain equity in their relationship and will feel distressed if they benefit more or benefit less from the other person, although under-benefiting is more distressing than over-benefiting. Equality refers to similarity of outcomes whereas equity may be most simply thought of as similarity in the ratio of outcomes to input. Relationship satisfaction and stability have been generally found to be more strongly related to reward and equality of outcome than to equity.

Rusbult's (1980) investment model is an extension of these models above. Research has been highly supportive of the predictions set forth by the investment model (Morrow & O'Sullivan, 1998). The investment model defines commitment as

the individual's feelings of attachment to a relationship and his or her intentions to remain in that relationship.

As might be expected, greater satisfaction with a relationship is often associated with greater commitment to that relationship. However, some people do remain highly committed to unsatisfying involvements or, conversely, show little or no commitment to relationships that are sources of great satisfaction. The investment model asserts that feelings of commitment are influenced not only by satisfaction level and perceived quality of alternatives, but also by a third factor, investment size (Rusbult's 1980). Investments refer to the resources that become attached to a relationship and would decline in value or be lost if the relationships were to end. For example, the time spent with a partner represents the most basic form of investment in a relationship. As interaction with a partner progresses, partners continue to invest directly in their relationship such as self-disclosure, effort expenditure, and the binding of their identity to relationship. Moreover, investments are indirect, and occur when originally extraneous resources such as mutual friends, shared experiences, or shared material possessions become attached to relationship. Therefore, the investment model views commitment as a multiply-determined fact. Commitment to maintain a relationship is a function of the individual's satisfaction with the relationship, the investments put into the relationship, and the possible alternatives to that relationship. Mathematically, this formulation can be expressed in Figure 2:



As mentioned earlier in the chapter, commitment is one of the three components of the triangular theory of love (Stenberg, 1986). He proposes that love has three basic components, each of which might form the vertex of a triangle. The two other components are intimacy and passion. According to the theory, intimacy can be thought of emotional investment which partners have in a relationship. It includes feelings of connectedness and closeness to another person, happiness with the loved one, sharing, mutual understanding, intimate communication and emotional support. Intimacy is what makes people want to share and offer emotional and material support to each other. Passion is a state of arousal and an intense desire to be united with the loved one. It leads to romance, physical attraction, and sexual satisfaction. Passion is what makes people feel “in love” and is the feeling most associated with love. It also rises quickly and strongly influences and biases people’s judgment. Commitment is a bonding to another person and a decision to be with him or her. It consists of two aspects – one short-term and one long-term. The short-term aspect is the decision to love a certain other, whereas the long-term one is the commitment to maintain that love. Commitment is what makes people want to be

serious, have a serious relationship and promise to be there for the other person if things get tough. These two aspects of the decision/commitment component of love do not necessarily occur together. The decision to love does not necessarily imply a commitment to that love. The reverse is also possible, where there is a commitment to a relationship in which the couples did not make the decision, as in arranged marriages.

There are numerous studies on the topics of relationship maintenance in recent years (e.g., Baxter & Dindia, 1990; Canary & Stafford, 1992; Danitton & Stafford, 1993; Guerrero, Eloy, & Wabnik, 1993). However, research has been scarce with respect to cross-cultural or intercultural variations in the assumptions and behavioral patterns related to relationship maintenance. Empirical studies of relational maintenance have mostly been conducted toward middle-class, White samples from North America, leading scholars to question their generalizability to other distinct cultures (e.g., Stafford, 1994). Studies conducted in such areas as interpersonal communication and social, cross-cultural psychology have unanimously found expectations and attitudes toward personal relationships diverge considerably from one culture to another (e.g., Gudykunst et al, 1996; Kamo, 1993; Levine, Sato, Hashimoto, & Verma, 1995; Lin & Rusbult, 1995).

Despite such important role of culture in the functioning of close personal relationships, relatively little research has examined the contribution of cultural differences to the prediction of romantic commitment. Davis and Strube (1993) have examined potential differences in the attraction dimension of commitment on the

basis of ethnicity. Their study compares romantic commitments of black and white dating couples. The study attempted to determine whether differences in the gender ration for Caucasian and African Americans would influence the personal commitment experienced by dating couples in each ethnic group. They used the investment model as a theoretical guide, which the level of romantic commitment is positively related to relationship satisfaction and positively related to the magnitude of personal investments, but negatively related to the availability of romantic alternatives. However, they did not observe any consistent racial differences in factors contributing to romantic commitment. Only one significant race effect was obtained: increases in commitment as a function of increases in relationship satisfaction were noted for white males but not for black males. In fact, black and white couples exhibited remarkably similar data patterns.

Considering such cultural context, one of the meta-perspectives for examining commitment was that of comparing individualism and collectivism. Ting-Toomey (1991) asserted that couples in individualist and collectivist cultures would differ on the importance they attached to personal romantic commitments as opposed to family ties and obligations. In individualist cultures, she reasoned, young people expect their romantic affairs to fulfill most of their needs. Family and group ties are relatively weak. In collectivist cultures, young people are taught to expect less from love. Their affections are invested in their families and kin. To test this notion, she interviewed 781 men and women from the U.S. (highly individualist country), France (intermediate individualist nation), and Japan, (low individualist country). As

predicted, students in the U.S. felt the most committed to their romantic partners. The French students were intermediate, and the Japanese students felt the least committed to their romantic partners.

As introduced earlier in the chapter, based on Stenberg's triangular theory of love, Gao (2001) examined the degree of commitment, intimacy, and passion in romantic relationships in China and the United State. Contrary to the hypothesis that the researcher made, Chinese and US American romantic couples did not vary in their level of commitment. According to Gao, this result may be explained by the consistency of couples in labeling the stage of their relationships. It can be argued cross-cultural differences in commitment are most likely to occur in initial stages of a relationship when couples are in the process of negotiating the status of their relationships. In this study, only eight out of 77 couples in the US sample and 26 out of 90 couples in the Chinese sample identified themselves as being involved in a casual relationship. Once couples reach the serious and/or engaged stage of relationship, they have come to some degree of understanding about the nature of their relationship.

Summary

After reviewing the literature, it becomes clear that international students tend to encounter many problems in adjusting to their new social environment. The development of their friendship networks, both American and fellow international students, often serves to buffer and protect students from the problems associated with their new environment. Although literature on friendship networks of

international students is useful, research on romantic relationship of international students is little known. Research on dating and romantic relationships is largely of Western societies with dating being an established practice in American society for mate selection. Much of those discussions of contemporary dating and romantic relationship patterns are limited to descriptive of the white middle class. It can be generalized to other groups but the understanding of dating and romantic relationships in other cultures is not as profound. Cross-cultural studies comparing dating practices in Western and Eastern societies and intercultural studies examining dating practices between two cultures are even more scarce, leaving gaps in the dating literature that require attention from social scientists. The present study utilized interpersonal attraction and mate selection approaches in order to analyze motivators for the relationship development by international students. Furthermore, the study employed the Sternberg's Triangular Love Theory approach in order to analyze romantic commitment of relationship developed by international students because this scale had examined cross-culturally previously. Since international students were exposed to both their own and American cultures, the study sought to exhibit the relative extent to which American and native cultures influence international students.

CHAPTER 3

RESEARCH QUESTIONS AND KEY CONCEPTS

Research Questions

The present study explored the following research questions:

RQ 1: What are the main motivators for international students to develop romantic relationships? Six motivators to be examined for this question are similarity, propinquity, mere exposure, social isolation and psychological stress, physical attractiveness, and personal liking.

RQ 1a: What are the main motivators for international students to develop romantic relationships with others from the same countries of origin?

RQ 1b: What are the main motivators for international students to develop romantic relationships with others from the different countries of origin?

RQ 1c: What are the main motivators for international students to develop romantic relationships with American students?

RQ 2: What are the main similarities and differences in terms of six motivators between three groups of the romantic relationships developed by international students? Three groups of the romantic relationships are international students with other students from the same countries of origins, international students with other students from different countries of origins, and international students with American students.

RQ 3: What is the relationship between the degree of romantic commitment and the three groups of the romantic relationships developed by international students?

Definition of Key Concepts

1. International students

International students are defined as any students who are neither citizen of the United States nor resident aliens (e.g., holding a “green card”) and are currently studying in the United State on an F-1 (student) visa or J-1 (student exchange visitor) visa at a college, university, or an English language program. In the present study, international students were limited to those students who are currently enrolled in colleges and universities in Hawaii eliminating those who are studying at English language programs since their duration of study is generally short (e.g., one month to three months).

Most of the F-1 and J-1 international students, including both undergraduates and graduates, who are enrolling in degree program at colleges and universities belong to International Student Offices at colleges and universities in order to comply with the Federal Law and the regulation of the Immigration and Naturalization Services. Therefore, international student samples were collected at University of Hawaii at Manoa, University of Hawaii at Hilo, Kapiolani Community College, and East-West Center with assistance of International Student Offices of those schools. Those samples were asked following questions (see Appendix B, Part E for complete questionnaire.):

Q3: Which school are you attending?

Q9: Which visa type are you holding currently?

Q10: How long have you been studying in Hawaii?

Q11: What is your level of education?

2. Country of origin

Country of origin is defined as the place where people were born (Cambridge Advanced Learner's Dictionary, 2003). In this study, the word *country of origin* is defined as the place where people were born and/or raised. This study utilized the term *country of origin* in order to classify international students. The reason for the usage of the word *country of origin* is to avoid possible ambiguity brought by the individual's current country of residence, citizenship or nationality. For example, in the present study, the country of origin of a Korean who was born and raised in Japan is considered to be Japan, regardless of his or her Korean nationality. Following questions were asked to the respondents (see Appendix B, Part E for complete questionnaire.):

Q4: What is your country of origin?

Q5: Where did you grow up? Please name the country and how long.

Q6: What is your nationality?

Q7: What is your citizenship?

3. Relationship

In the present study, intercultural dating relationship and romantic relationship are used interchangeably to indicate and explain the relationship between couples who are unmarried and are heterosexual partners.

Intercultural dating relationship

The term *dating* may be outdated, just as the term *courting* in early years. The terms such as “going out with” or simply “seeing” are in more common use among young in America nowadays. In the present study, intercultural dating relationship is defined as the relationship between individuals who are single and are opposite-sex partners but who may have a strong or developing emotional commitment to one another. They are also connected with feelings of love or with a loving relationship. (Specifically, the present study focused on those people who are exclusively dating with their partner.)

In this study, specifically, the term *intercultural* is used to refer to interaction between cultures. The term *interracial* refers to interaction between people from different races and *interethnic* refers to interaction between people from different ethnic groups. This differentiation often leads to conceptual confusion because many situations are not so simple. For example, one culture may include several races and/or ethnic groups and one race or ethnic group may exist in different cultures. Further, the term *intercultural* clarifies the word *cross-cultural* while this often is used as a synonym for *intercultural*, the term *cross-cultural* traditionally implies a comparison of some phenomenon across cultures (Gudykunst and Kim, 1997). For example, if the study examines the romantic relationships in Japan and Germany; it is making a cross-cultural comparison. If the study looks at how Japanese date Germans, it is looking at intercultural dating relationships.

Romantic relationship

The adjective “romantic” is not meant to connote all of the trappings of the medieval romantic ideal, but simply to distinguish the sort of love which may exist among unmarried, opposite-sex partners from such other related forms as love between children and their parents, close friends, and men and God. Similar to the intercultural dating relationship, the present study defines a romantic relationship as the relationship between individuals who are not married and are opposite-sex partners but who may have a strong or developing emotional commitment to one another. They are also connected with feelings of love or with a loving relationship.

a) Love/romantic relationship

In the present study, romantic relationship was operationalized using the Sternberg’s Triangular Theory of Love Scale (Sternberg, 1986). There is considerable literature on the theory of romantic relationships or romantic love, relatively little research has referred to intercultural romantic relationships.

The most widely used measure of the romantic love felt towards one’s partner is Rubin’s (1970) Love Scale. Although this Rubin’s Love Scale can be used for assessing general intimate relationships (Tzeng, 1993), the scale was developed for American subjects in order to distinguish between love and liking between romantic partners and close same-sex friends. Therefore, the Rubin’s Love Scale is not appropriate in the present study which measured intercultural romantic relationships. Additionally, it may be out of date since the measurement was developed over thirty years ago.

As introduced in the literature review section, Hatfield (1988) developed a theory that passionate love is universal – in terms of people’s potential for experiencing it. Passionate love is defined as “a state of intense longing for union with another” (Hatfield & Rapson, 1993, p. 5). Specifically, Hatfield claimed passionate love has been experienced by men and women of all racial and ethnic groups, and across historical eras. Further, small children, even under age six, are capable of experiencing passionate love. In order to provide evidence, Hatfield and Sprecher (1986) developed a Passionate Love Scale. Data reported by Hatfield and Rapson (1987) found that children and young adults (age 4 to 18 years) had very similar love scores. Moreover, males did not differ from females, nor were there any ethnic differences.

However, romantic love relationships may not be consisted of only passionate love. Gao (2001) examined the degree of commitment, intimacy, and passion based on the Sternberg’s Triangular Theory of Love (1986) in romantic relationships in China and the United State. In the Triangular Love Theory, *Romantic love* (intimacy and passion) consists of feelings of closeness and connection coupled with strong physical attraction. The study reported passion was significantly higher in US American couples than in Chinese couples. However, the study suggested the amount of intimacy and commitment did not vary cross-culturally (using both summation and dispersion scores).

According to Gao, this findings can be explained by Triandis’ (1977, 1978) contention suggesting that intimacy is a universal dimension of relationships. That is,

intimacy plays an equally important role in defining both Chinese and US romantic relationships. This could explain why there were no differences in either the summation or the dispersion scores. Another plausible explanation may be the presence of intimacy is a culturally universal, but the way in which intimacy is expressed differs from culture to culture.

Considering cultural context and romantic love relationships, therefore, in the present study, romantic relationship was operationalized using the Sternberg's Triangular Theory of Love Scale. This is because his theory of the triangular love model provides a better understanding of what romantic love is for this present study.

As mentioned earlier in the literature review chapter, the Triangular Theory Love Scale included three dimensions: intimacy, passion, and commitment. The scale has 45 items (15 items for each dimension) with a 9-point scale ranging from not at all (1) to moderately (5) and extremely (9). The intimacy component involves the emotional investment partners have in a relationship. Intimacy includes such qualities as experienced happiness with the loved one, mutual understanding, intimate communication, and emotional support. The second component, passion, refers to internal forces that lead to romance, physical attraction, and sexual satisfaction. The commitment component is defined as a short-term decision to love someone and a long-term commitment to a loving relationship. An item of the intimacy dimension indicates, "I feel close to my partner." An example of the passion subscale includes "Just seeing my partner excites me." An example from the commitment dimension is

“I view my relationship with my partner as permanent” (see Appendix B, Part D for complete questionnaire).

Additionally, the respondents were asked whether they are in romantic relationships or not currently. The questions were as follows (see Appendix B, Part A for complete questionnaire.):

Q1: Are you currently in a romantic relationship?

- Yes
- No

This study defines intercultural dating as a romantic relationship between two individuals from different cultural backgrounds. In the present study, even though a student forms a romantic relationship with another student from the same native country, this relationship is regarded as intercultural because those international students are staying in the U.S. for certain periods and they are exposed to both American and their own native cultures.

All the respondents were asked about their romantic partners in the questionnaire part A. The questions were as follows (see Appendix B, Part A for complete questionnaire.):

Q2: Is your partner a international or American students (born and raised in the U.S.)?

- American students
- International students

Q2a If international students, is your partner from the same country of origin as you or different country of origin?

- Same
- Different

Q2b If Different, which country?
Please name the country of origin of your partner.

Furthermore, intercultural dating and romantic relationships were assessed by four concepts: a) the stage of the relationship; b) the length of the relationship; c) the numbers of hours per week; and d) the living arrangement.

b) The stage of the relationship

The present study considers that there are four stages of dating relationship: (1) casual dating, (2) serious dating, (3) going steady, and (4) plan to get married.

Definitions of casual dating, serious dating, and plan to get married were adopted from Jacquet and Surra (2001). Casual dating refers to the partner who did not see themselves as a couple, and they may or may not have been dating others. Serious dating means that each partner and other people saw them as a couple. Going steady

was placed between serious dating and plans to get married. The stage of going steady is defined as both partners having a long regular romantic relationship. Plan to get married is the stage the partners had arrived at a private understanding they would get married.

The stage of the relationship of the respondents was operationalized by asking the respondents the following question (see Appendix B, Part A for complete questionnaire.):

Q7: How do you assess your current relationship with your partner (boyfriend/girlfriend)?

- Casual dating, Serious Dating, Going steady Plan to get married,
- Other (please be specific).

c) The length of the relationship

The length of the relationship was included because of the potential association between the length of a relationship and the degree of romantic commitment. The respondents were assessed by a following question (see Appendix B, Part A for complete questionnaire.):

Q3: How long have you been in this relationship?

_____ years and _____ months

d) The numbers of hour per week

The numbers of hours per week that the couples spend together were examined. The questions were as followed (see Appendix B, Part A for complete questionnaire.):

Q4: How many hours per week do you see your partner?

_____ hours.

e) The living arrangement

The living arrangement whether the couples are living together or separate was asked. The respondents were assessed by a following question (see Appendix B, Part A for complete questionnaire.):

Q5: Are you living with your partner?

Yes

No

f) Physical relationship

The physical relationship in this study was defined as a sexual relationship between couples. The term “physical” was used in stead of “sexual” in order to avoid low responses by those students who might feel their privacy was violated. The respondents were assessed by a following question (see Appendix B, Part A for complete questionnaire.):

Q6: Do you have a physical relationship with your partner?

Yes

No

4. American students

An American student is defined as a person who was born and raised in the U.S., whose parents are also the U.S. citizens, and whose cultural affiliation or identity, is American. The question 2 in the questionnaire part A, respondents were asked about their romantic partners whether they are American students or international students.

5. Motivators: motive to initiate a relationship

Motivations are defined as the emotions, desires, or internal goals of a person on which, consciously or unconsciously, that person bases his or her behavior. The present study tries to find out the major motivators associated with why some international students are attracted to one another and why they decided to develop romantic relationships in a range of variables that are believed to affect progress in premarital relationships as follows: a) similarity, b) propinquity, c) mere exposure, d) social isolation and psychological stress, e) physical attraction, and f) personal liking. There are four items to examine propinquity motivators: live closely, work closely, same class, and same social activity. Similarly, four items for mere exposure are examined: live closely, work closely, same class, and same social activity. Those items were also analyzed separately since all items measure different components of propinquity and mere exposure. Additionally, the respondents were asked an open-ended question on other motivating factors which they developed romantic relationships with their partners.

a) Similarity as a motivator

As discussed in the literature review chapter, previous research indicates similarity plays an important role in interpersonal attraction. The questions were adapted and modified from Romano (1997), Houts and Robins (1996), Klohnen and Mendelsohn (1998), McCroskey et al. (1975), and Schachter (1959) to assess the source of attraction in similarity which may affect the progress of romantic relationship in this study. A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2), neither agree nor disagree (3), somewhat agree (4), and strongly agree (5). The similarity questions were based on six dimensions: sociodemographic background, values, attitude, interests, appearance, and situations.

Similarity in sociodemographic background as motivators

Sociodemographic background dimension includes age, race, ethnic group, social class, culture, language, religion and education. Sociodemographic background questions are as follows (see Appendix B, Part B for complete questionnaire.):

Q1: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is the same or similar age as me.

Q2: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar ethnic group as me.

Q3: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar social class.

Q4: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar cultural background.

Q5: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she speaks the same language as me.

Q6: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her religious affiliation is the same as my religion.

Q7: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is studying the same level of education as me.

Similarity in values as motivators

Cultures differ widely in their values system. Values fundamentally influence people's behavior in society. Values indicate what matters, what is seen as good and bad, right and wrong, true and false, important and unimportant. Kluckhohn (1972, p. 395) defined values as a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action." Indeed, values do not describe how people act in a culture but dictate what they should or should not do. They tend to be the basis of all the decisions people make and provide standards for them to evaluate their own and others' actions. The respondents were asked two questions on value (see Appendix B, Part B for complete questionnaire.):

Q8: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because what he or she thinks is right or wrong is the same or similar to mine.

Q9: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because what he or she thinks is important or unimportant is the same or similar to mine.

Similarity in attitude as a motivator

The dimension of attitudes includes politics, dating/love, family, and friends. The attitudinal similarity was measured by the following questions (see Appendix B, Part B for complete questionnaire.):

Q10: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her political attitude is the same or similar to mine.

Q11: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar attitudes toward dating/love.

Q12: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her attitudes toward his or her family is the same or similar to mine.

Q13: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her attitudes toward his or her friends is the same or similar to mine.

Similarity in interests as a motivator

Similarity of interests covers hobbies and food preferences (see Appendix B, Part B for complete questionnaire.):

Q14: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar interests as mine.

Q15: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar hobbies as mine.

Q16: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar food preferences as me.

Similarity in appearance as a motivator

Appearance includes physical condition including height, weight, skin color, clothing style etc (see Appendix B, Part B for complete questionnaire.):

Q17: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her appearance is similar to me.

Similarity in situations as a motivator

The respondents were asked a following question (see Appendix B, Part B for complete questionnaire.):

Q18: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt he or she was in “the same boat” (e.g. having study groups for exams, presentation, group project, academic or English difficulty).

b) Propinquity as a motivator

In the present study, propinquity is defined as nearness or closeness in place and space. It includes two aspects: special distance and functional distance. Special distance of propinquity is actual physical distance between individuals whereas functional distance is the likelihood of two individuals coming into contact (e.g., taking five classes together). A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2), neither agree nor disagree (3), somewhat agree (4), and strongly agree (5). The propinquity was measured by the following questions (see Appendix B, Part B for complete questionnaire.):

Q19: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we lived close to each other (e.g., roommate, living in the same apartment, same floor, same dorm etc.).

Q20: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we worked near each other (e.g., co-worker, working in the same building, same floor).

Q21: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we enrolled in the same class (or classes).

Q22: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we belonged to or joined the same social activity or organization (e.g., same club, same organization, same church etc).

c) Mere Exposure as a motivator

In this study, mere exposure is defined as frequency of contact between two individuals, which leads to attraction. In short, simple repeated contact or exposure brings familiarity of the person and influences attraction. A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2), neither agree nor disagree (3), somewhat agree (4), and strongly agree (5). The respondents were asked following questions (see Appendix B, Part B for complete questionnaire.):

Q23: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we lived close to each other (e.g., roommate, live in the same apartment or dorm, or same floor etc).

Q24: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we worked near each other (e.g., co-worker, work in the same place, same building, same floor etc).

Q25: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we enrolled in the same class or classes.

Q26: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I can frequently interact/communicate/meet with him or her because we belonged to or joined the same social activity or organization (e.g., same club, organization, volunteer, or church etc).

d) Social isolation and psychological stress as a motivator

In this study, definition of social isolation is modified from the definition of loneliness by Peplau and Perlman (1979). Social isolation is defined as the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or qualitatively. Absence of adequate social support links to loneliness. The needs for affiliation are social motives that foster the development of interpersonal relationships. Psychological stress for international students can be identified as personal depression, homesickness, frustration, and culture shock (Dillard & Chisolm, 1983; Johnson, 1971; Klineberg & Hull, 1979). A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2),

neither agree nor disagree (3), somewhat agree (4), and strongly agree (5). Thus, the questions were as followed (see Appendix B, Part B for complete questionnaire.):

Q27: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt lonely.

Q28: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I did not have my social support network such as my family and friends.

Q29: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt stress due to change of the environment.

Q30: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt uncomfortable to adjust to a new life.

e) Physical attractiveness as a motivator

Physical attractiveness is one of the important determinants of how people feel particularly attracted to another person. People are attracted to another person who is attractive rather than unattractive. However, it is impossible to define and judge what is meant to be physically attractive because physical attractiveness is in the eye of the beholder. A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2), neither agree nor disagree (3), somewhat agree (4), and strongly agree (5). The respondents were asked following questions (see Appendix B, Part B for complete questionnaire.):

Q31: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is handsome/pretty.

f) Personal liking as a motivator

Liking has been described by some writers as friendship in its most simple form. Liking is generally distinguished from loving as the more logical and rational and the less emotional and possessive of the two emotions. Although liking is closely related to love, however, several researchers have identified some differences.

As mentioned earlier in this chapter, Stenberg (1986) has defined love in terms of a triangle-like relationship among three basic components: intimacy, passion, and commitment. Each component of love can be represented as one point on a triangle. Intimacy refers to the bonding and emotional closeness or connectedness that a couple feels for each other. Passion refers to the romantic feeling, desires, and arousal that partners feel for each other. Commitment refers to a couple's desire to stay together. This theory posits that eight qualitatively different types of love are formed by various combinations of the three components (see figure). Liking is one of the triangular models of love. In the theory, liking is defined as a highly intimate love and has intimacy component alone. It is characteristic of true friendship. Liking involves feelings of closeness, bondeness, and warmth without long-term commitment and no or little passion.

The most frequently cited research distinguishing liking from loving was conducted by Zick Rubin (1973, 1974). As introduced in the literature review section, according to Rubin, both like and love consist of the same basic elements: care, respect, tolerance, need, trust, affection, and attraction. What sets the two apart is their differential emphasis on these components. For example, when people love someone

the emphasis is on care, trust, need, and tolerance. In contrast, when people like someone the emphasis is on affection, attraction, and respect. The degree of emphasis people place on the various components of like and love is not absolute. Rather, it will vary in terms of intensity from one time to another, from one relationship to another, and sometimes even within a relationship over time. It may be possible to mention that loving is simply a stronger form of liking. In other words, it may be more appropriate to view liking and loving as lying on the same dimension with disliking and hating at the other end and indifference in-between (Swensen, 1972) (see Figure 4).

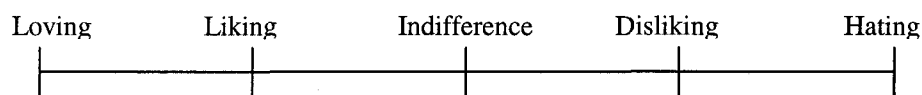


Figure 4. Single bipolar dimension of attraction (Swensen, 1972)

Several other researchers have produced findings are generally consistent with Rubin's conclusions (Dermer & Pyszczynski, 1978; Steck, levitan, McLane, & Kelly, 1982). However, the difficulty in distinguishing between liking and loving is expressed by researcher Elaine Hatfield and William Walster (1978), who contend the only real difference between like and love has to do with the depth of people's feelings and the degree to which they are involved with the other person.

Thus, in this present study, liking is defined simply as a positive feeling and emotional attraction toward a partner. This positive feeling or emotional attraction includes he or she thinks he or she is a nice or pleasant person. He or she also enjoys spending time with him or her. A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2), neither agree nor disagree (3), somewhat agree

(4), and strongly agree (5). The questions were modified based on this definition (see Appendix B, Part B for complete questionnaire.):

Q32: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I had a positive feeling for him or her.

Q33: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I thought he or she is a nice person.

Q34: I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I enjoyed spending time with him or her.

g) Others

The respondents were asked an open-ended question on other motivating factors which they developed their romantic relationships with their partners.

Q35: Other reasons?

6. Romantic commitment

Degree of commitment

In the present study, romantic commitment was operationalized using the commitment dimension of the Sternberg's Triangular Theory of Love Scale using commitment dimension of the scale (Part D, Q 31-45) as mentioned above (Sternberg, 1986).

Additionally, in this present study, degree of commitment to the relationship was measured by time of graduation from school. Since a duration of stay in the U.S. for international students is only limited while they are pursuing their degree and they on 1-year optional practical training after the completion of their study, it is important that the present study specifically examined the level of commitment and graduation

from school. Time of graduation from a college and university is considered as a turning point or a natural transition point for both students. A five-point scale was used, ranging from strongly disagree (1), somewhat disagree (2), neither agree nor disagree (3), somewhat agree (4), and strongly agree (5). Following questions were added in the Part C as the Romantic Relationship Commitment and Graduation (see Appendix B, Part C for complete questionnaire.):

Q1: I would like to continue the relationship with my partner even I will physically separate from him or her after graduation from school.

Q2: I am sure I will maintain my relationship after graduation regardless of physical separation.

Q3: I will do anything to continue the relationship with my partner after graduation from school.

Q4: I want to maintain the relationship with my partner after graduation as much as I can.

CHAPTER 4

METHODS

The data for the present study were collected through a survey using a self-administered questionnaire. Both the units of observation and units of analysis were international students at University of Hawaii at Manoa, University of Hawaii at Hilo, Kapiolani Community College, and the East-West Center. The sampling procedure, questionnaire construction and questionnaire administration are discussed below.

Sampling Procedure

The survey was administered to international students at four locations: University of Hawaii at Manoa (UHM), University of Hawaii at Hilo (UHH), Kapiolani Community College (KCC), and the East-West Center (EWC). In choosing the sample to be studied, schools with large foreign student populations were targeted since the number of students who enter into romantic relationship is ambiguous. The total population of international students at UHM is 1,600, UHH is 332, KCC is 400, and EWC is 120 according to each institution's fact sheet provided by the International Student Services (ISS) office. An eligible participant for the survey was single, not married, and currently seeing someone of the opposite gender. By summing the estimated number of potential respondents, which each ISS office estimates, the sample size was expected to be about 200. Snowball sampling method was employed since the population of students who are single, currently dating or have romantic relationships with other heterosexual students are difficult to locate. The survey distributions were begun with approximately ten international students

who met the criteria for the study through members of International Student Association (ISA) as well as activities of ISA. Those members of ISA were also asked to recommend or introduce other students who also met the criteria.

Survey Instrument

The survey instrument in the present study was a self-administered questionnaire consisting of five parts: (1) romantic relationship experience, (2) romantic relationship motivators, (3) romantic commitment and graduation (4) Triangular Theory of Love Scale, and (5) general information. It was composed primarily of fill-in and multiple choices.

The first part of the questionnaire consists of seven questions on the current romantic relationship experience (Part A: Q1-Q7, see a copy of the questionnaire Appendix A). It includes partner's country of origin, the stage of the relationship, length of the relationship, the number of meeting per week, living arrangement, and physical relationship.

The second part of the questionnaire consists of 35 items assessing the factors motivating international students to develop romantic relationships (Part B: Q1-34). The questions in this section were developed from the literature review. There were six subscales examining the romantic motives of international students: similarity, propinquity, mere exposure, social isolation and psychological stress, physical attractiveness, and personal liking. All items except one item (Q35 Other reasons?) were rated on a 5-point scale from *strongly disagree* (1) to *strongly agree* (5).

The third part of the questionnaire consists of four items about the romantic relationship commitment after graduation from school (Part C: Q1-4). All the four items were simply designed to assess degree of commitment after their graduation from school. These items were rated on a 5-point scale from *strongly disagree* (1) to *strongly agree* (5).

The fourth part of the questionnaire consists of 45 items assessing the Sternberg's Triangular Theory Love Scale (Part D: Q1-Q45). The questions in this section consist of three parts: intimacy, passion and commitment. The Love Scale was rated on 9-point scale in which *not at all* (1), *moderately* (5), and *extremely* (9) using points in between to indicate these values.

The last part of the questionnaire consists of 13 items (Part D: Q1-13). These items questions on the respondents' personal background information, including gender, age, academic level, place of birth, place where the respondent was raised, nationality, citizenship, ethnic identity, religion, length of studying and living abroad, expected completion/graduation year, and professional plans.

The questionnaire was pre-tested with some of the international students who met the qualification for this study and only minor revisions were made. Completing the questionnaire took from 10 to 15 minutes.

Data Collection Procedure

Before any data collection began, the researcher sought approval from the University of Hawaii Committee on Human Studies. The survey portion of the study was conducted at the University of Hawaii at Manoa (UHM), University of Hawaii at

Hilo (UHH), Kapiolani Community College (KCC), and the East-West Center (EWC). Snowball sampling was also utilized by beginning with approximately ten international students who met the criteria for the study through members of International Student Association (ISA) as well as activities or events of ISA.

Working with the Office of International Student Services (ISS) at each school, e-mail notifications about the study were sent out all international students via mailing list. The e-mail also informed them that the questionnaires were available at the ISS office. A box was placed at the front desk with the note “Romantic relationship survey” followed by a brief explanation of the proposed study.

Respondents were able to return their completed questionnaire back to the researcher in person or placed it in the box. Consent forms must be signed by students if the researcher did not explain about the study to the students in person and the forms were separated and placed into different boxes to maintain respondents’ anonymity. Since UHH is located in other island, the online survey questionnaire was prepared for those students. One week after the first e-mail notification, the second e-mail was sent out to encourage students to fill out their questionnaire. Students had three weeks to turn in the questionnaire.

CHAPTER 5

RESULTS

This section begins by presenting the characteristics of the respondents in this study. Then, a review of the procedures used in the data analysis and the subsequent results on each research question are presented and discussed.

Characteristics of Respondents

Basic background of the respondents

220 (paper-based) questionnaires were given out to the international students who are currently in a romantic relationship with other students at University of Hawaii at Manoa (UHM), Kapiolani Community College (KCC) and the East-West Center (EWC). In addition, the online survey questionnaire was prepared for to 330 international students at University of Hawaii at Hilo (UHH) due to the neighbor island location and e-mail notifications on the survey were sent out. 78 paper-based completed questionnaires out of 220 were returned (35 %) and 27 online surveys out of 330 were returned (8%). In total, 105 completed questionnaires were returned: hence a response rates was 19%. Ten questionnaires were excluded because they were answered by non-international students. The total number of the respondents in this study is 95.

78 respondents were from UHM, 9 respondents were from UHH, 4 respondents were from KCC, and 4 respondents were from EWC. Of the total respondents from all four institutions, 37 of the 95 respondents (38.9%) were male, and 58 respondents (61.6%) were female. The mean age for respondents was 24.33

years old ($SD = 3.29$) with a range of 19 to 32 years old. As for the education level, 65 of the 95 respondents (68.4%) were undergraduate students, and 30 respondents (31.5%) were graduate students: two of the 95 respondents (2.1%) were freshman, 8 respondents (8.4%) were sophomore, 16 respondents (16.8%) were junior, 39 respondents (41.1%) were senior, 16 respondents (16.8%) were in Master and 14 respondents (14.7%) were in PhD. Students had been studying in Hawaii for an average of 3.56 years ($SD = 2.26$). 92 of the 95 respondents (96.8%) were F-1 visa holders, and 3 respondents (3.2%) were J-1 visa holders (see Table 5).

As for the country of origin of the total student sample, 78 respondents (83%) were from East Asian countries (33 from Japan, 12 from Korea, 8 from China, 10 from Hong Kong, 1 from Macau, and 14 from Taiwan), 8 respondents (8.6%) were from Southeast Asian countries (1 from Vietnam, 2 from Indonesia, 3 from Malaysia, 1 from Thailand, and 1 from Burma), 7 respondents (7.6%) were from European countries (2 from England, 1 from France, 1 from Germany, 1 from Belgium, 1 from the Czech Republic, and 1 from Greece), and 2 respondents (2.1%) from South America, Argentina (see Table 6).

Table 5. Characteristics of respondents

| | Frequency | Percent | N | Missing | Mean | SD |
|-------------------------|-----------|---------|----|---------|-------|------|
| Institution | | | | -- | -- | -- |
| UHM | 78 | 82.1 | 95 | | | |
| UHH | 9 | 9.5 | 95 | | | |
| KCC | 4 | 4.2 | 95 | | | |
| EWC | 4 | 4.2 | 95 | | | |
| Gender | | | | -- | -- | -- |
| Male | 37 | 38.9 | 95 | | | |
| Female | 58 | 61.6 | 95 | | | |
| Age | | | | | 24.33 | 3.29 |
| Education level | | | | -- | -- | -- |
| Freshman | 2 | 2.1 | 95 | | | |
| Junior | 8 | 8.4 | 95 | | | |
| Sophomore | 16 | 16.8 | 95 | | | |
| Senior | 39 | 41.1 | 95 | | | |
| Master | 16 | 16.8 | 95 | | | |
| PhD | 14 | 14.7 | 95 | | | |
| Visa Status | | | | -- | -- | -- |
| F-1 | 92 | 96.8 | 95 | | | |
| J-1 | 3 | 3.2 | 95 | | | |
| Number of year in HI | | | | | 3.56 | 2.26 |
| Year of graduation | | | | -- | -- | -- |
| Spring 2004 | 30 | 31.9 | 95 | | | |
| Summer 2004 | 13 | 13.7 | 95 | | | |
| Fall 2004 | 8 | 8.4 | 95 | | | |
| In 2 years | 32 | 33.7 | 95 | | | |
| In 3 years | 7 | 7.4 | 95 | | | |
| In 4 years | 5 | 5.3 | 95 | | | |
| Plan after graduation | | | | -- | -- | -- |
| Undecided | 4 | 4.2 | 95 | | | |
| Working in the US | 57 | 60 | 95 | | | |
| Working in home country | 11 | 11.6 | 95 | | | |
| Further study | 20 | 21.1 | 95 | | | |
| Getting married | 1 | 1.1 | 95 | | | |
| Going home | 2 | 2.1 | 95 | | | |

Table 6. Countries of origin of the total population

| Region | Country of Origin | N | Percent |
|--------------------------------------|-------------------|----|---------|
| East Asia Total: 78 (83%) | Japan | 33 | 34.7 |
| | Korea | 12 | 12.6 |
| | China | 8 | 8.4 |
| | Hong Kong | 10 | 10.5 |
| | Macau | 1 | 1.1 |
| | Taiwan | 14 | 14.7 |
| Southeast Asia Total: 8 (8.6%) | Vietnam | 1 | 1.1 |
| | Indonesia | 2 | 2.1 |
| | Malaysia | 3 | 3.2 |
| | Thailand | 1 | 1.1 |
| | Burma | 1 | 1.1 |
| Europe Total: 7 (7.60%) | England | 2 | 2.1 |
| | France | 1 | 1.1 |
| | Germany | 1 | 1.1 |
| | Belgium | 1 | 1.1 |
| | Czech Republic | 1 | 1.1 |
| | Greece | 1 | 1.1 |
| South America Total 2: (2.1%) | Argentina | 2 | 2.1 |
| Total | | 95 | 100 |

Romantic relationship characteristics of respondents

As Table 7 indicates, all the respondents answered that they are currently in a romantic relationship. Of the total 95 respondents, 71 international students (74.7%) are in a relationship with other international students, and 24 international students (25.3%) are with American students. Furthermore, 40 international students (42.1%) have developed their relationships with other international students from the same countries of origin, and 31 international students (32.6%) with other international students from different countries of origin. As for the length of relationship, 34 students of the 95 respondents (35.8 %) have been in the relationship for less than one year, 25 students (26.3%) for less than two years, 20 students (21 %) for less than three years, 9 students (9.5%) for less than four years, and 7 students (7.4%) for more than four years. Of the total respondents, 39 students (41.1%) responded that they are living together and 56 students (58.9%) are not. 75 out of the 95 respondents (78.9%) answered that they have a physical relationship with their partners and 20 students (21.1%) do not. As for the stage of relationship, 8 respondents (8.4%) selected “Casual dating” category, 18 respondents (18.9%) selected “Serious Dating”, 34 respondents (35.8%) selected “Going Steady”, and 35 respondents (36.8%) selected “Plan to get married”.

Table 7. Romantic relationship characteristics

| | Frequency | Percent | N | Missing |
|-----------------------------|-----------|---------|----|---------|
| Romantic Relationship | | | | -- |
| Yes | 95 | 100 | 95 | |
| No | 0 | 0 | 95 | |
| International or American | | | | -- |
| International student | 71 | 74.7 | 95 | |
| American student | 24 | 25.3 | 95 | |
| Partner's country | | | | -- |
| Same country of origin | 40 | 42.1 | 95 | |
| Different country of origin | 31 | 32.6 | 95 | |
| America | 24 | 25.3 | 95 | |
| Length of relationship | | | | -- |
| Less than 1 month | 5 | 5.3 | 95 | |
| Less than 6 months | 12 | 12.6 | 95 | |
| Less than 1 year | 17 | 17.9 | 95 | |
| Less than 1.5 years | 10 | 10.5 | 95 | |
| Less than 2 years | 15 | 15.8 | 95 | |
| Less than 2.5 years | 8 | 8.4 | 95 | |
| Less than 3 years | 12 | 12.6 | 95 | |
| Less than 3.5 years | 3 | 3.2 | 95 | |
| Less than 4 years | 6 | 6.3 | 95 | |
| Less than 4.5 years | 4 | 4.2 | 95 | |
| More than 4.5 years | 5 | 3.2 | 95 | |
| Cohabitation | | | | -- |
| Yes | 39 | 41.1 | 95 | |
| No | 56 | 58.9 | 95 | |
| Physical relationship | | | | -- |
| Yes | 75 | 78.9 | 95 | |
| No | 20 | 21.1 | 95 | |
| Relationship Status | | | | -- |
| Casual Dating | 8 | 8.4 | 95 | |
| Serious Dating | 18 | 18.9 | 95 | |
| Going steady | 34 | 35.8 | 95 | |
| Plan to get married | 35 | 36.8 | 95 | |

Romantic relationship was operationalized using the Sternberg's Triangular Theory of Love Scale (Sternberg, 1986). The Love Scale included three dimensions: intimacy, passion, and commitment. The scale has 45 items (15 items for each dimension) with a 9-point scale ranging from not at all (1), moderately (5), and extremely (9). Only the items for commitment were used for research question 3 for further analysis. According to the Triangular Love theory, an average score of 5 on a particular subscale indicates a moderate level of the component represented by the subscale (Sternberg, 1998). Examining the scores for each of the three subscales suggests how the respondents perceive their love relationship to be composed of various amounts of intimacy, passion, and decision/commitment.

As shown in Table 8 and Figure 5, 6, and 7, an examination of total mean scores indicated that international students scored relatively high in all three dimensions. In looking at each component of love scale, international students who are in romantic relationships with American students were highest in intimacy component followed by international students with other students from the same countries of origin, and international students with different countries of origin had the lowest mean scores. International students who developed the relationship with others from the same countries of origin are the highest in passion dimension followed by international students with American students, and international students with others from different countries of origin had the lowest mean scores. As for the means for commitment, international students with others from different countries of origin had the greatest score while international students with American students have

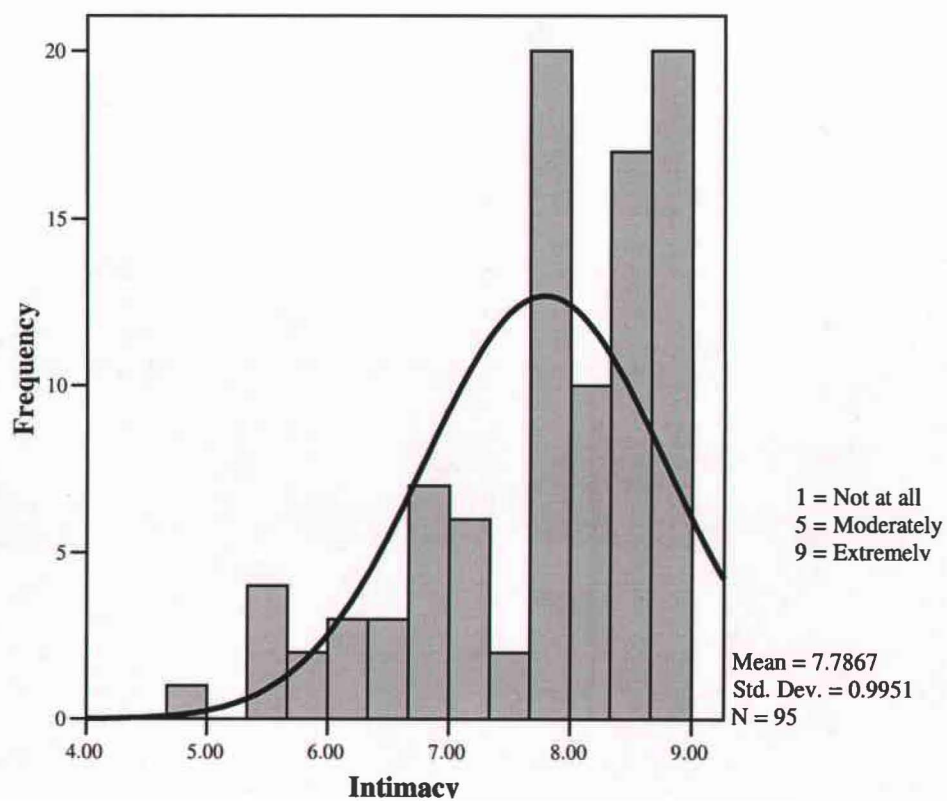
medium scores and international students with others from same countries have the lowest scores. These findings suggested that all three components, intimacy, passion, and commitment, were perceived relatively high by international students who developed their romantic relationship with other students.

Table 8. Means and standard deviation by types of relationships

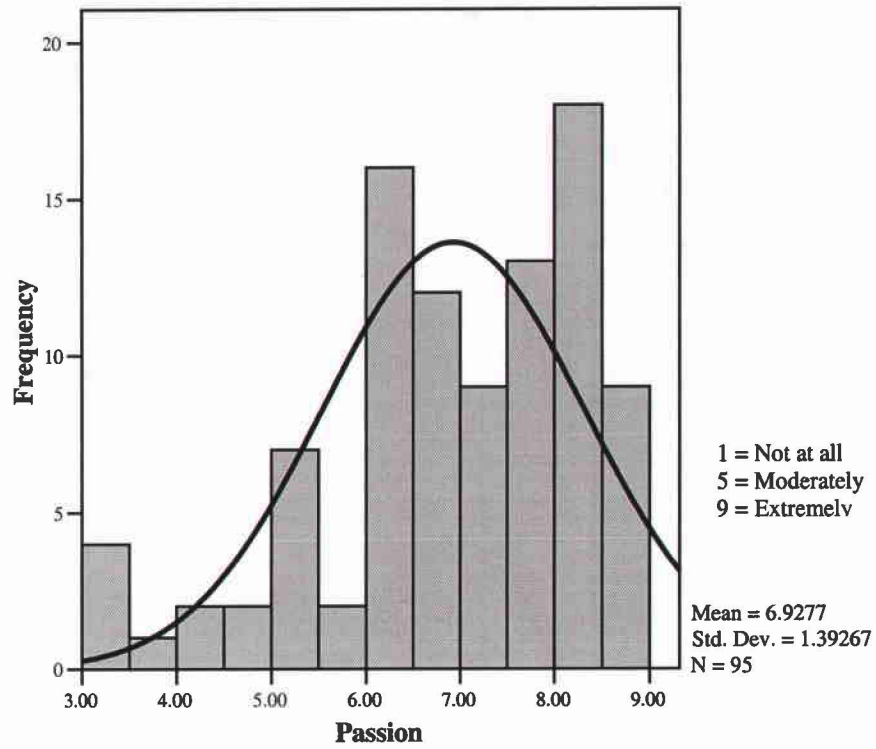
| Name of Scale | Same (40) | | Different (31) | | American (24) | | Total (95) | |
|---------------|-----------|------|----------------|------|---------------|------|------------|------|
| | M | SD | M | SD | M | SD | M | SD |
| Intimacy | 7.79 | 1.05 | 7.71 | 0.93 | 7.87 | 1.03 | 7.79 | 1.00 |
| Passion | 7.05 | 1.41 | 6.71 | 1.21 | 7.01 | 1.6 | 6.93 | 1.40 |
| Commitment | 7.45 | 1.31 | 7.55 | 1.07 | 7.47 | 1.47 | 7.48 | 1.27 |

Figure 5. Intimacy dimension of Triangular Love Scale

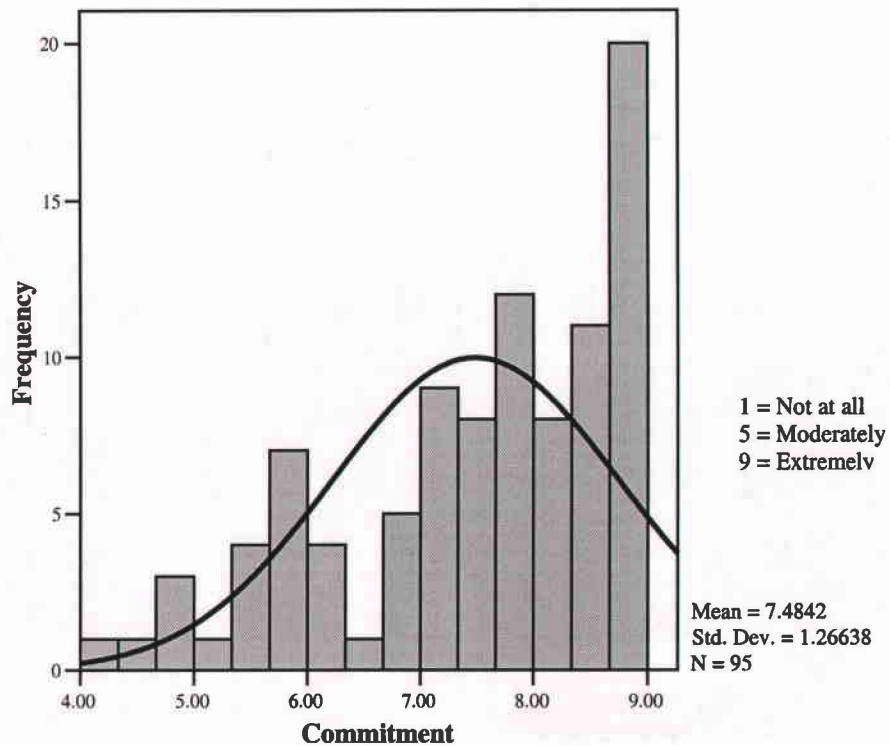
Histogram



**Figure 6. Passion dimension of Triangular Love Scale
Histogram**



**Figure 7. Commitment dimension of Triangular Love Scale
Histogram**



Reliability Analysis

Before examining all the research questions, reliability analysis was run to construct romantic relationship motivators (including six motivators: similarity, propinquity, mere exposure, social isolation and psychological stress, physical attraction, and personal liking), romantic commitment and graduation scale, and romantic commitment of the Triangular Love scale. The results of reliability analysis on each scale are also presented in Table 9.

Table 9. Results of reliability analysis in motivators scales, commitment and graduation scales, and romantic commitment of the Triangular Love Scales

| Name of Scale | Questionnaire Items | Alpha | N |
|---|---|-------|----|
| Similarity | Part B: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 | .86 | 95 |
| Propinquity | Part B: 19, 20, 21, 22 | .40 | 95 |
| Mere exposure | Part B: 23, 24, 25, 26 | .56 | 95 |
| Social isolation and psychological stress | Part B: 27, 28, 29, 30 | .83 | 95 |
| Personal liking | Part B: 32, 33, 34 | .84 | 95 |
| Commitment and graduation | Part C: 1, 2, 3, 4 | .86 | 95 |
| Romantic Commitment of the Triangular Love Theory | Part D: 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 | .81 | 95 |

Romantic relationship motivators

For the similarity of the romantic relationship motivators scale, the questionnaire items 1 to 18 from Part B were used. Coefficient alpha for this scale was .86 (see Table 9). As for the propinquity and the mere exposure, the items 19, 20, 21, 22 and items 23, 24, 25, and 26 from Part B were used respectively. The coefficient alpha for the propinquity scale was .40 and was .56 for the mere exposure scale (see Table 9). The alphas of propinquity and mere exposure are low because each four item of both scales does not measure the same concepts. Therefore, each four item was treated separately for analysis. Items 27, 28, 29, and 30 from Part B were used to create the social isolation and psychological stress scale. The coefficient alpha was .83 (see Table 9). For the personal liking scale, items 32, 33, and 34 were from Part B used. The coefficient alpha was .84 (see Table 9).

Commitment and graduation

For the commitment and graduation scale, the questionnaire items 1, 2, 3, and 4 from Part C were used. The coefficient alpha was yielded .86 (see Table 9).

Romantic commitment of the Triangular Love Theory

Items 31 to 45 from Part D were used to create the romantic commitment scale of the Triangular Love Theory. The coefficient alpha was yielded .81 (see Table 9).

Results for the Research Questions

The Statistical Package for Social Science (SPSS 12.0 version) was used to analyze the results of the survey data. Although questionnaire items used for romantic relationship motivators and romantic commitment and graduation, and Sternberg's Triangular Love Scale were measured at the ordinal level, they were treated as if they were interval measures in the analysis of this study.

RQ 1: What are the main motivators for international students to develop romantic relationships? Motivators to be examined for this question are similarity, propinquity, mere exposure, social isolation and psychological stress, physical attractiveness, and personal liking.

A repeated-measures analysis of variance (ANOVA) was conducted with the factor being all international students and the dependent variables being six motivators in order to analyze this research question. The mean scores and standard deviations for six motivators, similarity ($M = 2.99$, $SD = .68$), propinquity scale ($M = 1.82$, $SD = .73$), mere exposure ($M = 1.94$, $SD = .82$), social isolation and psychological stress ($M = 1.92$, $SD = .93$), physical attractiveness ($M = 3.32$, $SD = 1.23$), and personal liking ($M = 4.59$, $SD = .58$) are shown in Table 10. From these results, in this study, it appears that personal liking is a relatively significant motivator for international students who developed relationships subsequently followed by physical attractiveness.

Table 10. Means and standard deviations for six motivators among whole population of international students

| Name of Scale | Mean | SD | N |
|---|------|------|----|
| Similarity (3) | 2.99 | .68 | 95 |
| Propinquity (6) | 1.82 | .73 | 95 |
| Mere exposure (4) | 1.95 | .82 | 95 |
| Social isolation and psychological stress (5) | 1.92 | .93 | 95 |
| Physical attractiveness (2) | 3.32 | 1.23 | 95 |
| Personal liking (1) | 4.59 | .58 | 95 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

The result of repeated measures ANOVA (Sphericity Assumed) indicated significant differences among six motivators, $F(5, 470) = 177.99, p < .001$. The η^2 was large, .65 indicating that there are significant differences on six motivators among whole population of international students who developed romantic relationships (see Table 11).

Table 11. Repeated measures ANOVA results for six motivators within whole population of international students

Measure: Six motivators

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|---------|------|---------------------|
| Motivators | 567.345 | 5 | 113.469 | 177.990 | .000 | .654 |
| Error (motives) | 299.627 | 470 | .638 | | | |

Table 12. Pairwise comparisons between six motivators within whole population of international students

Measure: motive

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.155* | .078 | .000 | .920 | 1.389 |
| | 3 | 1.008* | .087 | .000 | .746 | 1.269 |
| | 4 | 1.070* | .123 | .000 | .698 | 1.442 |
| | 5 | -.382 | .147 | .162 | -.825 | .060 |
| | 6 | -1.658* | .078 | .000 | -1.893 | -1.423 |
| 2 | 1 | -1.155* | .078 | .000 | -1.389 | -.920 |
| | 3 | -.147 | .059 | .211 | -.324 | .030 |
| | 4 | -.085 | .120 | 1.000 | -.447 | .278 |
| | 5 | -1.537* | .143 | .000 | -1.968 | -1.107 |
| | 6 | -2.813* | .098 | .000 | -3.109 | -2.517 |
| 3 | 1 | -1.008* | .087 | .000 | -1.269 | -.746 |
| | 2 | .147 | .059 | .211 | -.030 | .324 |
| | 4 | .062 | .122 | 1.000 | -.306 | .431 |
| | 5 | -1.390* | .155 | .000 | -1.858 | -.922 |
| | 6 | -2.666* | .106 | .000 | -2.984 | -2.347 |
| 4 | 1 | -1.070* | .123 | .000 | -1.442 | -.698 |
| | 2 | .085 | .120 | 1.000 | -.278 | .447 |
| | 3 | -.062 | .122 | 1.000 | -.431 | .306 |
| | 5 | -1.453* | .160 | .000 | -1.935 | -.970 |
| | 6 | -2.728* | .117 | .000 | -3.082 | -2.374 |
| 5 | 1 | .382 | .147 | .162 | -.060 | .825 |
| | 2 | 1.537* | .143 | .000 | 1.107 | 1.968 |
| | 3 | 1.390* | .155 | .000 | .922 | 1.858 |
| | 4 | 1.453* | .160 | .000 | .970 | 1.935 |
| | 6 | -1.276* | .119 | .000 | -1.635 | -.916 |
| 6 | 1 | 1.658* | .078 | .000 | 1.423 | 1.893 |
| | 2 | 2.813* | .098 | .000 | 2.517 | 3.109 |
| | 3 | 2.666* | .106 | .000 | 2.347 | 2.984 |
| | 4 | 2.728* | .117 | .000 | 2.374 | 3.082 |
| | 5 | 1.276* | .119 | .000 | .916 | 1.635 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Proximity, 3 = Mere exposure, 4 = Social isolation and psychological stress, 5 = Physical attractiveness, and 6 = Personal liking.

Subsequently, pairwise comparisons were also conducted to assess the differences between the six motivators using the Bonferroni method to control for

Type I errors across the tests (see Table 12). Pairwise comparisons displayed significant mean differences between most of the levels of motives. Those mean differences are not significant were between physical attractiveness and similarity $.382, p = .162$, mere exposure and propinquity $.147, p = 2.11$, social isolation and psychological and stress propinquity $.085, p = 1.0$, mere exposure and social isolation and psychological stress $.062, p = 1.0$. The results showed international students considered personal liking as the most significant motivator to develop romantic relationships. The next most significant motivator was physical attractiveness followed immediately by similarity. Mere exposure was the fourth while social isolation and psychological stress was the fifth. Propinquity was the least significant motivator for international students who initiated their relationships.

In addition to analysis above, another separate repeated measures ANOVA was conducted in order to analyze single items of propinquity and mere exposure subscales. Because each item measured different dimensions of those propinquity and mere exposure subscales, separate analysis was needed to run. Those single items examined for propinquity were: live closely, work closely, same class, and same social activity. Similar to propinquity, the single items analyzed for mere exposure were: live closely, work closely, same class, and same social activity. The mean scores and standard deviations of the total sample are presented in Table 13. The mean scores and standard deviations for similarity ($M = 2.99, SD = .68$), social isolation and psychological stress ($M = 1.92, SD = .93$), physical attractiveness ($M = 3.32, SD = 1.23$) and personal liking ($M = 4.59, SD = .58$) were the same as the

previous result as above. In looking at the mean scores and standard deviations for the each item of propinquity, “live closely” was 1.86 (SD = 1.26), “work closely” was 1.55 (SD = .88), “same class” was 1.83 (SD = 1.30), and “same social activity” was 2.04 (SD = 1.34). The mean scores and standard deviation for single items of mere exposure were: “live closely” (M = 2.06, SD = 1.32), “work closely” (M = 1.67, SD = 1.02), “same class” (M = 2.00, SD = 1.26), and “same social activity” (M = 2.06, SD = 1.34). From these results, it appears that personal liking is again a relatively significant motivator for international students who developed relationship in this study followed by physical attractiveness.

Table 13. Means and standard deviations for twelve motivators among whole population of international students (single items of propinquity and mere exposure subscales)

| Name of Scale | Mean | SD | N |
|---|------|------|-----|
| Similarity (3) | 2.99 | .68 | 95 |
| Propinquity | --- | --- | --- |
| Live closely (8) | 1.86 | 1.26 | 95 |
| Work closely (11) | 1.55 | .88 | 95 |
| Same class (9) | 1.83 | 1.30 | 95 |
| Same social activity (5) | 2.04 | 1.34 | 95 |
| Mere exposure | --- | --- | --- |
| Live closely (4) | 2.06 | 1.32 | 95 |
| Work closely (9) | 1.67 | 1.02 | 95 |
| Same class (6) | 2.00 | 1.26 | 95 |
| Same social activity (4) | 2.06 | 1.34 | 95 |
| Social isolation and psychological stress (7) | 1.92 | .93 | 95 |
| Physical attractiveness (2) | 3.32 | 1.23 | 95 |
| Personal liking (1) | 4.59 | .58 | 95 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

The results from the separate repeated measures ANOVA, with the factor being whole population of international students who developed relationships and the dependent variables being twelve motivators, showed a significant difference among all motivators within whole population of international students who developed the relationships, $F(11, 1034) = 69.37, p < .001, \eta^2 = .43$ (see Table 14).

Table 14. Repeated measures ANOVA results for twelve motivators within whole population of international students who are in romantic relationships

Measure: Twelve motivators

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|------|-------------|--------|------|---------------------|
| Motivators | 812.174 | 11 | 73.834 | 69.373 | .000 | .425 |
| Error (motives) | 1100.499 | 1034 | 1.064 | | | |

Separate pairwise comparisons were also conducted subsequently using the Bonferroni method to control for Type I errors across the tests (see Table 15). The result indicated personal liking as the most important motivator followed by physical attractiveness and similarity. However, by looking at each single item on both propinquity and mere exposure, the test showed a slightly different significance on the motivators from the previous test. The following significant motivators after similarity were indicated as both “live closely” and “same social activity” on mere exposure while “same social activity” on propinquity scale indicated as the next important motive. “Same class” on mere exposure came next. Then, social isolation and psychological stress was followed. “Live closely” and “same class” on propinquity scale were nearly the same strength followed by “work closely” on mere

exposure. "Work closely" on propinquity was reported as the least significant motivator for international students to develop romantic relationships in this study.

Table 15. Pairwise Comparisons between twelve motivators within whole population of international students

Measure: motives

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.155* | .136 | .000 | .682 | 1.628 |
| | 3 | 1.400* | .098 | .000 | 1.058 | 1.742 |
| | 4 | 1.104* | .139 | .000 | .620 | 1.588 |
| | 5 | .960* | .130 | .000 | .505 | 1.414 |
| | 6 | .909* | .142 | .000 | .413 | 1.406 |
| | 7 | 1.259* | .105 | .000 | .893 | 1.625 |
| | 8 | .926* | .134 | .000 | .461 | 1.392 |
| | 9 | .937* | .135 | .000 | .465 | 1.408 |
| | 10 | 1.070* | .123 | .000 | .640 | 1.500 |
| | 11 | -.382 | .147 | .712 | -.894 | .130 |
| | 12 | -1.658* | .078 | .000 | -1.929 | -1.387 |
| | 2 | 1 | -1.155* | .136 | .000 | -1.628 |
| 3 | | .245 | .121 | 1.000 | -.176 | .666 |
| 4 | | -.051 | .184 | 1.000 | -.693 | .590 |
| 5 | | -.196 | .165 | 1.000 | -.770 | .379 |
| 6 | | -.246 | .112 | 1.000 | -.635 | .143 |
| 7 | | .104 | .145 | 1.000 | -.401 | .609 |
| 8 | | -.229 | .187 | 1.000 | -.882 | .424 |
| 9 | | -.219 | .170 | 1.000 | -.811 | .374 |
| 10 | | -.085 | .158 | 1.000 | -.634 | .464 |
| 11 | | -1.538* | .183 | .000 | -2.176 | -.899 |
| 12 | | -2.813* | .147 | .000 | -3.325 | -2.302 |
| 3 | | 1 | -1.400* | .098 | .000 | -1.742 |
| | 2 | -.245 | .121 | 1.000 | -.666 | .176 |
| | 4 | -.297 | .157 | 1.000 | -.844 | .251 |
| | 5 | -.441 | .144 | .188 | -.942 | .060 |
| | 6 | -.491 | .144 | .064 | -.993 | .011 |
| | 7 | -.141 | .084 | 1.000 | -.435 | .153 |
| | 8 | -.474 | .160 | .256 | -1.032 | .083 |
| | 9 | -.464 | .148 | .155 | -.980 | .053 |
| | 10 | -.330 | .130 | .854 | -.784 | .124 |
| | 11 | -1.783* | .153 | .000 | -2.316 | -1.249 |
| | 12 | -3.058* | .114 | .000 | -3.455 | -2.662 |
| | 4 | 1 | -1.104* | .139 | .000 | -1.588 |
| 2 | | .051 | .184 | 1.000 | -.590 | .693 |
| 3 | | .297 | .157 | 1.000 | -.251 | .844 |
| 5 | | -.144 | .199 | 1.000 | -.837 | .549 |
| 6 | | -.194 | .192 | 1.000 | -.863 | .474 |
| 7 | | .155 | .161 | 1.000 | -.407 | .717 |
| 8 | | -.178 | .101 | 1.000 | -.530 | .174 |
| 9 | | -.167 | .200 | 1.000 | -.864 | .530 |
| 10 | | -.034 | .180 | 1.000 | -.661 | .593 |
| 11 | | -1.486* | .178 | .000 | -2.107 | -.865 |
| 12 | | -2.762* | .149 | .000 | -3.280 | -2.244 |

Continued:

| | | | | | | |
|----|----|---------|---------|-------|--------|--------|
| 5 | 1 | -.960* | .130 | .000 | -1.414 | -.505 |
| | 2 | .196 | .165 | 1.000 | -.379 | .770 |
| | 3 | .441 | .144 | .188 | -.060 | .942 |
| | 4 | .144 | .199 | 1.000 | -.549 | .837 |
| | 6 | -.050 | .155 | 1.000 | -.589 | .489 |
| | 7 | .299 | .131 | 1.000 | -.157 | .756 |
| | 8 | -.033 | .175 | 1.000 | -.643 | .576 |
| | 9 | -.023 | .087 | 1.000 | -.327 | .281 |
| | 10 | .110 | .154 | 1.000 | -.427 | .648 |
| | 11 | -1.342* | .181 | .000 | -1.974 | -.710 |
| | 12 | -2.618* | .149 | .000 | -3.136 | -2.099 |
| | 6 | 1 | -.909* | .142 | .000 | -1.406 |
| 2 | | .246 | .112 | 1.000 | -.143 | .635 |
| 3 | | .491 | .144 | .064 | -.011 | .993 |
| 4 | | .194 | .192 | 1.000 | -.474 | .863 |
| 5 | | .050 | .155 | 1.000 | -.489 | .589 |
| 7 | | .350 | .140 | .940 | -.138 | .837 |
| 8 | | .017 | .178 | 1.000 | -.604 | .637 |
| 9 | | .027 | .158 | 1.000 | -.523 | .577 |
| 10 | | .161 | .157 | 1.000 | -.387 | .708 |
| 11 | | -1.292* | .195 | .000 | -1.972 | -.612 |
| 12 | | -2.567* | .151 | .000 | -3.095 | -2.040 |
| 7 | | 1 | -1.259* | .105 | .000 | -1.625 |
| | 2 | -.104 | .145 | 1.000 | -.609 | .401 |
| | 3 | .141 | .084 | 1.000 | -.153 | .435 |
| | 4 | -.155 | .161 | 1.000 | -.717 | .407 |
| | 5 | -.299 | .131 | 1.000 | -.756 | .157 |
| | 6 | -.350 | .140 | .940 | -.837 | .138 |
| | 8 | -.333 | .155 | 1.000 | -.871 | .206 |
| | 9 | -.322 | .134 | 1.000 | -.789 | .144 |
| | 10 | -.189 | .144 | 1.000 | -.689 | .311 |
| | 11 | -1.641* | .166 | .000 | -2.220 | -1.063 |
| | 12 | -2.917* | .127 | .000 | -3.360 | -2.474 |
| | 8 | 1 | -.926* | .134 | .000 | -1.392 |
| 2 | | .229 | .187 | 1.000 | -.424 | .882 |
| 3 | | .474 | .160 | .256 | -.083 | 1.032 |
| 4 | | .178 | .101 | 1.000 | -.174 | .530 |
| 5 | | .033 | .175 | 1.000 | -.576 | .643 |
| 6 | | -.017 | .178 | 1.000 | -.637 | .604 |
| 7 | | .333 | .155 | 1.000 | -.206 | .871 |
| 9 | | .010 | .178 | 1.000 | -.608 | .629 |
| 10 | | .144 | .168 | 1.000 | -.440 | .728 |
| 11 | | -1.309* | .186 | .000 | -1.957 | -.660 |
| 12 | | -2.584* | .142 | .000 | -3.080 | -2.088 |
| 9 | | 1 | -.937* | .135 | .000 | -1.408 |
| | 2 | .219 | .170 | 1.000 | -.374 | .811 |
| | 3 | .464 | .148 | .155 | -.053 | .980 |
| | 4 | .167 | .200 | 1.000 | -.530 | .864 |
| | 5 | .023 | .087 | 1.000 | -.281 | .327 |
| | 6 | -.027 | .158 | 1.000 | -.577 | .523 |
| | 7 | .322 | .134 | 1.000 | -.144 | .789 |
| | 8 | -.010 | .178 | 1.000 | -.629 | .608 |
| | 10 | .133 | .154 | 1.000 | -.405 | .672 |
| | 11 | -1.319* | .183 | .000 | -1.958 | -.680 |
| | 12 | -2.595* | .151 | .000 | -3.120 | -2.069 |

Continued:

| | | | | | | |
|----|----|---------|--------|-------|--------|--------|
| 10 | 1 | -1.070* | .123 | .000 | -1.500 | -.640 |
| | 2 | .085 | .158 | 1.000 | -.464 | .634 |
| | 3 | .330 | .130 | .854 | -.124 | .784 |
| | 4 | .034 | .180 | 1.000 | -.593 | .661 |
| | 5 | -.110 | .154 | 1.000 | -.648 | .427 |
| | 6 | -.161 | .157 | 1.000 | -.708 | .387 |
| | 7 | .189 | .144 | 1.000 | -.311 | .689 |
| | 8 | -.144 | .168 | 1.000 | -.728 | .440 |
| | 9 | -.133 | .154 | 1.000 | -.672 | .405 |
| | 11 | -1.453* | .160 | .000 | -2.011 | -.894 |
| | 12 | -2.728* | .117 | .000 | -3.137 | -2.319 |
| | 11 | 1 | .382 | .147 | .712 | -.130 |
| 2 | | 1.538* | .183 | .000 | .899 | 2.176 |
| 3 | | 1.783* | .153 | .000 | 1.249 | 2.316 |
| 4 | | 1.486* | .178 | .000 | .865 | 2.107 |
| 5 | | 1.342* | .181 | .000 | .710 | 1.974 |
| 6 | | 1.292* | .195 | .000 | .612 | 1.972 |
| 7 | | 1.641* | .166 | .000 | 1.063 | 2.220 |
| 8 | | 1.309* | .186 | .000 | .660 | 1.957 |
| 9 | | 1.319* | .183 | .000 | .680 | 1.958 |
| 10 | | 1.453* | .160 | .000 | .894 | 2.011 |
| 12 | | -1.276* | .119 | .000 | -1.691 | -.860 |
| 12 | | 1 | 1.658* | .078 | .000 | 1.387 |
| | 2 | 2.813* | .147 | .000 | 2.302 | 3.325 |
| | 3 | 3.058* | .114 | .000 | 2.662 | 3.455 |
| | 4 | 2.762* | .149 | .000 | 2.244 | 3.280 |
| | 5 | 2.618* | .149 | .000 | 2.099 | 3.136 |
| | 6 | 2.567* | .151 | .000 | 2.040 | 3.095 |
| | 7 | 2.917* | .127 | .000 | 2.474 | 3.360 |
| | 8 | 2.584* | .142 | .000 | 2.088 | 3.080 |
| | 9 | 2.595* | .151 | .000 | 2.069 | 3.120 |
| | 10 | 2.728* | .117 | .000 | 2.319 | 3.137 |
| | 11 | 1.276* | .119 | .000 | .860 | 1.691 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity – Live closely, 3 = Propinquity – Work closely, 4 = Propinquity – Same class, 5 = Propinquity – Same social activity, 6 = Mere exposure – Live closely, 7 = Mere exposure – Work closely, 8 = Mere exposure – Same class, 9 = Mere exposure – Same social activity, 10 = Social isolation and psychological stress, 11 = Physical attractiveness, and 12 = Personal liking.

In summary, the data in this study indicated that personal liking is the most significant motivator for international students who developed romantic relationships. Those students also reported physical attractiveness is the next significant motives as well as similarity.

RQ 1a: What are the main motivators for international students to develop romantic relationships with other students from the same countries of origin?

This research question was examined in a one-way repeated-measures ANOVA the factor being international students who developed relationships with other students from the same countries of origin and the dependent variables being six motivators. The mean scores and standard deviations of six motivators for international students who developed their relationship with others from the same countries of origin are presented in Table 16.: similarity (M = 3.22, SD = .56), propinquity (M = 1.88, SD = .73), mere exposure (M = 1.93, SD = .83), social isolation and psychological stress (M = 2.13, SD = 1.04), physical attractiveness (M = 3.23, SD = 1.39), and personal liking (M = 4.54, SD = .69). From these results, it appears that personal liking is a relatively significant motivator for international students who developed romantic relationships with their partners from the same country of origin in this study while physical attractiveness and similarity are as the second significant motivators.

Table 16. Means and standard deviations for six motivators among international students with their partners from the same countries of origin

| Name of Scale | Mean | SD | N |
|---|------|------|----|
| Similarity (3) | 3.22 | .56 | 40 |
| Propinquity (6) | 1.88 | .70 | 40 |
| Mere exposure (5) | 1.93 | .83 | 40 |
| Social isolation and psychological stress (4) | 2.13 | 1.04 | 40 |
| Physical attractiveness (2) | 3.23 | 1.39 | 40 |
| Personal liking (1) | 4.54 | .69 | 40 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

The result of a one-way repeated-measures ANOVA revealed there was a significant difference among six motivators associated with development of romantic relationships by international students with other students from the same countries of origin, $F(5, 195) = 58.76, p < .001, \eta^2 = .60$ (see Table 17).

Table 17. Repeated measures ANOVA results for six motivators within international students with their partners from the same countries of origin

Measure: Six motivators

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|--------|------|---------------------|
| Motivators | 217.372 | 5 | 43.474 | 58.763 | .000 | .601 |
| Error (motives) | 144.266 | 195 | .740 | | | |

Table 18. Pairwise comparisons between six motivators within international students with their partners from the same countries of origin

Measure: motive

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.340* | .119 | .000 | .969 | 1.710 |
| | 3 | 1.290* | .137 | .000 | .861 | 1.718 |
| | 4 | 1.090* | .182 | .000 | .520 | 1.659 |
| | 5 | -.004 | .244 | 1.000 | -.767 | .759 |
| | 6 | -1.321* | .114 | .000 | -1.678 | -.963 |
| 2 | 1 | -1.340* | .119 | .000 | -1.710 | -.969 |
| | 3 | -.050 | .093 | 1.000 | -.341 | .241 |
| | 4 | -.250 | .181 | 1.000 | -.815 | .315 |
| | 5 | -1.344* | .249 | .000 | -2.122 | -.565 |
| | 6 | -2.660* | .168 | .000 | -3.186 | -2.135 |
| 3 | 1 | -1.290* | .137 | .000 | -1.718 | -.861 |
| | 2 | .050 | .093 | 1.000 | -.241 | .341 |
| | 4 | -.200 | .173 | 1.000 | -.742 | .342 |
| | 5 | -1.294* | .265 | .000 | -2.124 | -.464 |
| | 6 | -2.610* | .180 | .000 | -3.173 | -2.048 |
| 4 | 1 | -1.090* | .182 | .000 | -1.659 | -.520 |
| | 2 | .250 | .181 | 1.000 | -.315 | .815 |
| | 3 | .200 | .173 | 1.000 | -.342 | .742 |
| | 5 | -1.094* | .280 | .005 | -1.968 | -.219 |
| | 6 | -2.410* | .192 | .000 | -3.010 | -1.811 |
| 5 | 1 | .004 | .244 | 1.000 | -.759 | .767 |
| | 2 | 1.344* | .249 | .000 | .565 | 2.122 |
| | 3 | 1.294* | .265 | .000 | .464 | 2.124 |
| | 4 | 1.094* | .280 | .005 | .219 | 1.968 |
| | 6 | -1.317* | .192 | .000 | -1.917 | -.716 |
| 6 | 1 | 1.321* | .114 | .000 | .963 | 1.678 |
| | 2 | 2.660* | .168 | .000 | 2.135 | 3.186 |
| | 3 | 2.610* | .180 | .000 | 2.048 | 3.173 |
| | 4 | 2.410* | .192 | .000 | 1.811 | 3.010 |
| | 5 | 1.317* | .192 | .000 | .716 | 1.917 |

Based on estimated marginal means

* The mean difference is significant at the .050 level.

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity, 3 = Mere exposure, 4 = Social isolation and psychological stress, 5 = Physical attractiveness, and 6 = Personal liking.

Subsequently, pairwise comparisons were conducted to find out which motivators affected international students most strongly to develop their relationship with partners from the same countries of origin as presented in Table 18. Each pairwise comparison was tested using the Bonferroni procedure to control for Type I

error across the multiple comparisons. Pairwise comparisons displayed significant mean differences between most of the levels of motives. Those mean differences are not significant were between physical attractiveness and similarity $.004, p = .1.0$, mere exposure and propinquity $.05, p = 1.0$, social isolation and psychological and stress propinquity $.25, p = 1.0$, mere exposure and social isolation and psychological stress $.20, p = 1.0$. The result indicated that personal liking is the strongest motivator for international students to develop their relationship with partners from the same country of origin. The next strongest motivator is physical attractiveness which is slightly stronger than similarity. Social isolation and psychological stress is the fourth strongest motivator followed by mere exposure. Propinquity is the least significant motivator in this study.

In addition to analysis above, another separate repeated measures ANOVA with the factor being international students who developed relationships with other students from the same countries of origin and the dependent variables being twelve motivators was conducted in order to analyze single items of propinquity and mere exposure subscales. Because each item measured different components of propinquity and mere exposure, separate analysis was conducted. Those single items examined for propinquity were: live closely, work closely, same class, and same social activity. Similar to propinquity, the single items analyzed for mere exposure were: live closely, work closely, same class, and same social activity. The mean scores and standard deviations of similarity ($M = 3.22, SD = .56$), social isolation and psychological stress ($M = 2.13, SD = 1.04$), physical attractiveness ($M = 3.23, SD = 1.39$), and personal

liking ($M = 4.54$ $SD = .69$) were the same as previous test (see Table 19). As for single items from propinquity, the means and standard deviations are presented in Table 16: “live closely” ($M = 2.23$, $SD = 1.48$), “work closely” ($M = 1.43$, $SD = .71$), “same class” ($M = 1.75$, $SD = 1.15$), and “same social activity” ($M = 2.12$, $SD = 1.32$). In looking at, the means for the each item of mere exposure as shown in Table 9, “live closely” was 2.25 ($SD = 1.46$), work closely was 1.53 ($SD = .91$), same class was 1.78 ($SD = 1.10$), and same social activity was 2.18 ($SD = 1.45$). These results indicate that it appears that personal liking is again a relatively significant motivator for international students who developed romantic relationships with their partners from the same country of origin in this study while physical attractiveness and similarity are as the second significant motivators.

Table 19. Means and standard deviations for twelve motivators among international students with their partners from the same countries of origin (single items of propinquity and mere exposure subscales)

| Name of Scale | Mean | SD | N |
|---|------|------|-----|
| Similarity (3) | 3.22 | .56 | 40 |
| Propinquity | --- | --- | --- |
| Live closely (5) | 2.23 | 1.48 | 40 |
| Work closely (12) | 1.43 | .71 | 40 |
| Same class (10) | 1.75 | 1.15 | 40 |
| Same social activity (8) | 2.12 | 1.32 | 40 |
| Mere exposure | --- | --- | --- |
| Live closely (4) | 2.25 | 1.46 | 40 |
| Work closely (11) | 1.53 | .91 | 40 |
| Same class (9) | 1.78 | 1.10 | 40 |
| Same social activity (6) | 2.18 | 1.45 | 40 |
| Social isolation and psychological stress (7) | 2.13 | 1.04 | 40 |
| Physical attractiveness (2) | 3.23 | 1.39 | 40 |
| Personal liking (1) | 4.54 | .69 | 40 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating.

The results from the separate one-way repeated measures ANOVA, with the factor being international students who developed relationships with other students from the same of country origin and the dependent variables being six motivators, showed a significant difference among the motivating factors, $F(11, 429) = 27.92$, $p < .001$, $\eta^2 = .42$ (see Table 20).

Table 20. Repeated measures ANOVA results for twelve motivators within international students with their partners from the same countries of origin

Measure: Twelve motivators

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|--------|------|---------------------|
| Motives | 348.264 | 11 | 31.660 | 27.921 | .000 | .417 |
| Error (motives) | 486.459 | 429 | 1.134 | | | |

Separate pairwise comparisons were also conducted subsequently using the Bonferroni method to control for Type I errors across the tests shown in Table 21. The results illustrated the personal liking as the most significant motivator followed by physical attractiveness and similarity. However, by looking at each single item on both propinquity and mere exposure subscales, the test showed a slightly different strength on the motivator from the previous test above. “Live closely” on both propinquity and mere exposure scales indicated as a relatively significant motive while “same social activity” on mere exposure scale indicated as the next strong motivator. Then, social isolation and psychological stress, and “same social activity” on propinquity scale are nearly same significance followed by “same class” on both mere exposure and propinquity scales. “Work closely” on mere exposure comes next

and “work closely” on propinquity is reported as the least significant motivator in this study.

Table 21. Pairwise comparisons between twelve motivators within international students with their partners from the same countries of origin

Measure: motive

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | .996* | .234 | .008 | .140 | 1.851 |
| | 3 | 1.796* | .131 | .000 | 1.317 | 2.274 |
| | 4 | 1.471* | .205 | .000 | .721 | 2.220 |
| | 5 | 1.096* | .194 | .000 | .386 | 1.806 |
| | 6 | .971* | .226 | .007 | .144 | 1.797 |
| | 7 | 1.696* | .152 | .000 | 1.139 | 2.253 |
| | 8 | 1.446* | .194 | .000 | .735 | 2.157 |
| | 9 | 1.046* | .224 | .002 | .229 | 1.863 |
| | 10 | 1.090* | .182 | .000 | .424 | 1.756 |
| | 11 | -.004 | .244 | 1.000 | -.896 | .887 |
| | 12 | -1.321* | .114 | .000 | -1.739 | -.903 |
| | 2 | 1 | -.996* | .234 | .008 | -1.851 |
| 3 | | .800* | .197 | .015 | .081 | 1.519 |
| 4 | | .475 | .297 | 1.000 | -.612 | 1.562 |
| 5 | | .100 | .288 | 1.000 | -.953 | 1.153 |
| 6 | | -.025 | .191 | 1.000 | -.723 | .673 |
| 7 | | .700 | .238 | .362 | -.170 | 1.570 |
| 8 | | .450 | .306 | 1.000 | -.668 | 1.568 |
| 9 | | .050 | .314 | 1.000 | -1.098 | 1.198 |
| 10 | | .094 | .290 | 1.000 | -.967 | 1.155 |
| 11 | | -1.000 | .360 | .551 | -2.315 | .315 |
| 12 | | -2.317* | .281 | .000 | -3.342 | -1.291 |
| 3 | | 1 | -1.796* | .131 | .000 | -2.274 |
| | 2 | -.800* | .197 | .015 | -1.519 | -.081 |
| | 4 | -.325 | .201 | 1.000 | -1.058 | .408 |
| | 5 | -.700 | .212 | .139 | -1.476 | .076 |
| | 6 | -.825* | .211 | .024 | -1.598 | -.052 |
| | 7 | -.100 | .086 | 1.000 | -.415 | .215 |
| | 8 | -.350 | .210 | 1.000 | -1.119 | .419 |
| | 9 | -.750 | .242 | .239 | -1.635 | .135 |
| | 10 | -.706* | .187 | .034 | -1.388 | -.024 |
| | 11 | -1.800* | .249 | .000 | -2.708 | -.892 |
| | 12 | -3.117* | .172 | .000 | -3.747 | -2.487 |
| | 4 | 1 | -1.471* | .205 | .000 | -2.220 |
| 2 | | -.475 | .297 | 1.000 | -1.562 | .612 |
| 3 | | .325 | .201 | 1.000 | -.408 | 1.058 |
| 5 | | -.375 | .295 | 1.000 | -1.452 | .702 |
| 6 | | -.500 | .289 | 1.000 | -1.555 | .555 |
| 7 | | .225 | .210 | 1.000 | -.543 | .993 |
| 8 | | -.025 | .181 | 1.000 | -.686 | .636 |
| 9 | | -.425 | .291 | 1.000 | -1.487 | .637 |
| 10 | | -.381 | .250 | 1.000 | -1.295 | .532 |
| 11 | | -1.475* | .270 | .000 | -2.463 | -.487 |
| 12 | | -2.792* | .218 | .000 | -3.588 | -1.995 |

Continued:

| | | | | | | |
|----|----|---------|---------|-------|--------|--------|
| 5 | 1 | -1.096* | .194 | .000 | -1.806 | -.386 |
| | 2 | -.100 | .288 | 1.000 | -1.153 | .953 |
| | 3 | .700 | .212 | .139 | -.076 | 1.476 |
| | 4 | .375 | .295 | 1.000 | -.702 | 1.452 |
| | 6 | -.125 | .246 | 1.000 | -1.024 | .774 |
| | 7 | .600 | .217 | .575 | -.194 | 1.394 |
| | 8 | .350 | .247 | 1.000 | -.552 | 1.252 |
| | 9 | -.050 | .124 | 1.000 | -.502 | .402 |
| | 10 | -.006 | .212 | 1.000 | -.779 | .767 |
| | 11 | -1.100* | .281 | .024 | -2.129 | -.071 |
| | 12 | -2.417* | .229 | .000 | -3.254 | -1.579 |
| | 6 | 1 | -.971* | .226 | .007 | -1.797 |
| 2 | | .025 | .191 | 1.000 | -.673 | .723 |
| 3 | | .825* | .211 | .024 | .052 | 1.598 |
| 4 | | .500 | .289 | 1.000 | -.555 | 1.555 |
| 5 | | .125 | .246 | 1.000 | -.774 | 1.024 |
| 7 | | .725 | .221 | .143 | -.081 | 1.531 |
| 8 | | .475 | .245 | 1.000 | -.422 | 1.372 |
| 9 | | .075 | .264 | 1.000 | -.890 | 1.040 |
| 10 | | .119 | .269 | 1.000 | -.866 | 1.103 |
| 11 | | -.975 | .359 | .646 | -2.287 | .337 |
| 12 | | -2.292* | .266 | .000 | -3.264 | -1.319 |
| 7 | | 1 | -1.696* | .152 | .000 | -2.253 |
| | 2 | -.700 | .238 | .362 | -1.570 | .170 |
| | 3 | .100 | .086 | 1.000 | -.215 | .415 |
| | 4 | -.225 | .210 | 1.000 | -.993 | .543 |
| | 5 | -.600 | .217 | .575 | -1.394 | .194 |
| | 6 | -.725 | .221 | .143 | -1.531 | .081 |
| | 8 | -.250 | .211 | 1.000 | -1.021 | .521 |
| | 9 | -.650 | .242 | .691 | -1.533 | .233 |
| | 10 | -.606 | .201 | .298 | -1.341 | .129 |
| | 11 | -1.700* | .266 | .000 | -2.672 | -.728 |
| | 12 | -3.017* | .201 | .000 | -3.750 | -2.283 |
| | 8 | 1 | -1.446* | .194 | .000 | -2.157 |
| 2 | | -.450 | .306 | 1.000 | -1.568 | .668 |
| 3 | | .350 | .210 | 1.000 | -.419 | 1.119 |
| 4 | | .025 | .181 | 1.000 | -.636 | .686 |
| 5 | | -.350 | .247 | 1.000 | -1.252 | .552 |
| 6 | | -.475 | .245 | 1.000 | -1.372 | .422 |
| 7 | | .250 | .211 | 1.000 | -.521 | 1.021 |
| 9 | | -.400 | .258 | 1.000 | -1.342 | .542 |
| 10 | | -.356 | .200 | 1.000 | -1.086 | .374 |
| 11 | | -1.450* | .284 | .001 | -2.488 | -.412 |
| 12 | | -2.767* | .203 | .000 | -3.507 | -2.026 |
| 9 | | 1 | -1.046* | .224 | .002 | -1.863 |
| | 2 | -.050 | .314 | 1.000 | -1.198 | 1.098 |
| | 3 | .750 | .242 | .239 | -.135 | 1.635 |
| | 4 | .425 | .291 | 1.000 | -.637 | 1.487 |
| | 5 | .050 | .124 | 1.000 | -.402 | .502 |
| | 6 | -.075 | .264 | 1.000 | -1.040 | .890 |
| | 7 | .650 | .242 | .691 | -.233 | 1.533 |
| | 8 | .400 | .258 | 1.000 | -.542 | 1.342 |
| | 10 | .044 | .233 | 1.000 | -.808 | .895 |
| | 11 | -1.050 | .297 | .071 | -2.137 | .037 |
| | 12 | -2.367* | .253 | .000 | -3.293 | -1.441 |

Continued:

| | | | | | | |
|----|----|---------|--------|-------|--------|--------|
| 10 | 1 | -1.090* | .182 | .000 | -1.756 | -.424 |
| | 2 | -.094 | .290 | 1.000 | -1.155 | .967 |
| | 3 | .706* | .187 | .034 | .024 | 1.388 |
| | 4 | .381 | .250 | 1.000 | -.532 | 1.295 |
| | 5 | .006 | .212 | 1.000 | -.767 | .779 |
| | 6 | -.119 | .269 | 1.000 | -1.103 | .866 |
| | 7 | .606 | .201 | .298 | -.129 | 1.341 |
| | 8 | .356 | .200 | 1.000 | -.374 | 1.086 |
| | 9 | -.044 | .233 | 1.000 | -.895 | .808 |
| | 11 | -1.094* | .280 | .024 | -2.116 | -.072 |
| | 12 | -2.410* | .192 | .000 | -3.111 | -1.710 |
| | 11 | 1 | .004 | .244 | 1.000 | -.887 |
| 2 | | 1.000 | .360 | .551 | -.315 | 2.315 |
| 3 | | 1.800* | .249 | .000 | .892 | 2.708 |
| 4 | | 1.475* | .270 | .000 | .487 | 2.463 |
| 5 | | 1.100* | .281 | .024 | .071 | 2.129 |
| 6 | | .975 | .359 | .646 | -.337 | 2.287 |
| 7 | | 1.700* | .266 | .000 | .728 | 2.672 |
| 8 | | 1.450* | .284 | .001 | .412 | 2.488 |
| 9 | | 1.050 | .297 | .071 | -.037 | 2.137 |
| 10 | | 1.094* | .280 | .024 | .072 | 2.116 |
| 12 | | -1.317* | .192 | .000 | -2.019 | -.615 |
| 12 | | 1 | 1.321* | .114 | .000 | .903 |
| | 2 | 2.317* | .281 | .000 | 1.291 | 3.342 |
| | 3 | 3.117* | .172 | .000 | 2.487 | 3.747 |
| | 4 | 2.792* | .218 | .000 | 1.995 | 3.588 |
| | 5 | 2.417* | .229 | .000 | 1.579 | 3.254 |
| | 6 | 2.292* | .266 | .000 | 1.319 | 3.264 |
| | 7 | 3.017* | .201 | .000 | 2.283 | 3.750 |
| | 8 | 2.767* | .203 | .000 | 2.026 | 3.507 |
| | 9 | 2.367* | .253 | .000 | 1.441 | 3.293 |
| | 10 | 2.410* | .192 | .000 | 1.710 | 3.111 |
| | 11 | 1.317* | .192 | .000 | .615 | 2.019 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity – Live closely, 3 = Propinquity – Work closely, 4 = Propinquity – Same class, 5 = Propinquity – Same social activity, 6 = Mere exposure – Live closely, 7 = Mere exposure – Work closely, 8 = Mere exposure – Same class, 9 = Mere exposure – Same social activity, 10 = Social isolation and psychological stress, 11 = Physical attractiveness, and 12 = Personal liking.

In summary, the data in this study indicated personal liking is the most significant motive for international students who developed romantic relationships with other students from the same countries of origin. Those students also reported physical attractiveness and similarity as the next significant motives.

RQ 1b: What are the main motivators for international students to develop romantic relationships with other students from different countries of origin?

To analyze this research question, a one-way repeated-measures ANOVA was conducted with the factor being international students who developed relationships with other students from different countries of origin and the dependent variables being six motivators. An examination of mean scores and standard deviation in Table 22 suggested in this study, personal liking ($M = 4.56$ $SD = .57$) as a relatively significant motivator for international students to developed romantic relationships with other students from different country of origin. It appears physical attraction ($M = 3.35$, $SD = 1.14$) is the second important motive followed by similarity ($M = 2.89$, $SD = .81$).

Table 22. Means and standard deviations for six motivators among international students with their partners from different countries of origin

| Name of Scale | Mean | SD | N |
|---|------|------|----|
| Similarity (3) | 2.89 | .81 | 31 |
| Propinquity (5) | 1.95 | .75 | 31 |
| Mere exposure (4) | 2.04 | .83 | 31 |
| Social isolation and psychological stress (6) | 1.83 | .69 | 31 |
| Physical attractiveness (2) | 3.35 | 1.14 | 31 |
| Personal liking (1) | 4.56 | .57 | 31 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

The results of the one-way within-subjects ANOVA indicated a significant difference among six motivators, $F(5, 150) = 62.31, p < .001, \eta^2 = .68$ (see Table 23). These results supported that six motivators affected differently for international students who developed relationships with the others from different countries of origin.

Table 23. Repeated measures ANOVA results for six motives within international students with their partners from different countries of origin

Measure: Six motives

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|--------|------|---------------------|
| Motives | 174.869 | 5 | 34.974 | 62.307 | .000 | .675 |
| Error (motives) | 84.197 | 150 | .561 | | | |

To assess further the differences among six motives, pairwise comparisons were performed using the Bonferroni method to control for Type I errors across the tests shown in Table 24. Pairwise comparisons displayed significant mean differences between most of the levels of motives. Those mean differences are not significant were between physical attractiveness and similarity $.47, p = .1.0$, mere exposure and propinquity $.09, p = 1.0$, social isolation and psychological and stress propinquity $1.21, p = 1.0$, mere exposure and social isolation and psychological stress $.21, p = 1.0$. The results indicated that personal liking is the strongest motivating factor for international students to develop their relationship with partners from different country of origin. The next strongest motivating factor is physical attractiveness while similarity is the third strongest. Mere exposure is the fourth strongest factor followed

by propinquity. Social isolation and psychological stress is the least important motivating factor.

Table 24. Pairwise comparisons between six motives within international students with their partners from different countries of origin

Measure: motives

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | .934* | .135 | .000 | .503 | 1.365 |
| | 3 | .845* | .139 | .000 | .402 | 1.287 |
| | 4 | 1.055* | .212 | .000 | .378 | 1.731 |
| | 5 | -.470 | .244 | .955 | -1.247 | .308 |
| | 6 | -1.674* | .153 | .000 | -2.162 | -1.186 |
| 2 | 1 | -.934* | .135 | .000 | -1.365 | -.503 |
| | 3 | -.089 | .082 | 1.000 | -.352 | .174 |
| | 4 | .121 | .195 | 1.000 | -.500 | .742 |
| | 5 | -1.403* | .224 | .000 | -2.118 | -.689 |
| | 6 | -2.608* | .155 | .000 | -3.102 | -2.113 |
| 3 | 1 | -.845* | .139 | .000 | -1.287 | -.402 |
| | 2 | .089 | .082 | 1.000 | -.174 | .352 |
| | 4 | .210 | .212 | 1.000 | -.466 | .885 |
| | 5 | -1.315* | .240 | .000 | -2.079 | -.550 |
| | 6 | -2.519* | .174 | .000 | -3.073 | -1.964 |
| 4 | 1 | -1.055* | .212 | .000 | -1.731 | -.378 |
| | 2 | -.121 | .195 | 1.000 | -.742 | .500 |
| | 3 | -.210 | .212 | 1.000 | -.885 | .466 |
| | 5 | -1.524* | .229 | .000 | -2.254 | -.795 |
| | 6 | -2.728* | .188 | .000 | -3.327 | -2.130 |
| 5 | 1 | .470 | .244 | .955 | -.308 | 1.247 |
| | 2 | 1.403* | .224 | .000 | .689 | 2.118 |
| | 3 | 1.315* | .240 | .000 | .550 | 2.079 |
| | 4 | 1.524* | .229 | .000 | .795 | 2.254 |
| | 6 | -1.204* | .197 | .000 | -1.831 | -.578 |
| 6 | 1 | 1.674* | .153 | .000 | 1.186 | 2.162 |
| | 2 | 2.608* | .155 | .000 | 2.113 | 3.102 |
| | 3 | 2.519* | .174 | .000 | 1.964 | 3.073 |
| | 4 | 2.728* | .188 | .000 | 2.130 | 3.327 |
| | 5 | 1.204* | .197 | .000 | .578 | 1.831 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity, 3 = Mere exposure, 4 = Social isolation and psychological stress, 5 = Physical attractiveness, and 6 = Personal liking.

In addition to analysis above, another separate repeated measures ANOVA was performed in order to analyze single items of propinquity and mere exposure subscales. Separate analysis was performed since each item of propinquity and mere exposure subscales measured different dimensions. Those single items examined for propinquity were: live closely, work closely, same class, and same social activity. Similar to propinquity, the single items analyzed for mere exposure were: live closely, work closely, same class, and same social activity. The factor was international students who developed relationships with other students from different of country origin and the dependent variables were twelve motivators. The mean scores and standard deviations of the total sample are presented in Table 25. The mean scores and standard deviations for similarity ($M = 2.89$, $SD = .81$), social isolation and psychological stress ($M = 1.83$, $SD = .69$), physical attractiveness ($M = 3.35$, $SD = 1.14$) and personal liking ($M = 4.56$, $SD = .57$) were the same as the previous result as above. In looking at the mean scores and standard deviations for the each item of propinquity, “live closely” was 1.74 ($SD = 1.13$), “work closely” was 1.81($SD = .98$), “same class” was 1.87 ($SD = 1.38$), and “same social activity” was 2.39 ($SD = 1.50$). The mean scores and standard deviation for single items of mere exposure were: “live closely” ($M = 1.87$, $SD = 1.02$), “work closely” ($M = 1.84$, $SD = 1.07$), “same class” ($M = 2.13$, $SD = 1.36$), and “same social activity” ($M = 2.32$, $SD = 1.40$). From these results, it appears personal liking is again a relatively significant motivator for international students who developed relationship in this study followed by physical attractiveness.

Table 25. Means and standard deviations for twelve motivators among international students with their partners from different countries of origin (single items of propinquity and mere exposure subscales)

| Name of Scale | Mean | SD | N |
|---|------|------|-----|
| Similarity (3) | 2.89 | .81 | 31 |
| Propinquity | --- | --- | --- |
| Live closely (11) | 1.74 | 1.13 | 31 |
| Work closely (10) | 1.81 | .98 | 31 |
| Same class (7) | 1.87 | 1.38 | 31 |
| Same social activity (4) | 2.39 | 1.50 | 31 |
| Mere exposure | ---- | --- | --- |
| Live closely (7) | 1.87 | 1.02 | 31 |
| Work closely (8) | 1.84 | 1.07 | 31 |
| Same class (6) | 2.13 | 1.36 | 31 |
| Same social activity (5) | 2.32 | 1.40 | 31 |
| Social isolation and psychological stress (9) | 1.83 | .69 | 31 |
| Physical attractiveness (2) | 3.35 | 1.14 | 31 |
| Personal liking (1) | 4.56 | .57 | 31 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

The result from the separate one-way repeated measures ANOVA revealed a significant difference among the motivating factors, $F(11, 330) = 22.18, p < .001, \eta^2 = .42$ (see Table 26).

Table 26. Repeated measures ANOVA results for twelve motivators within international students with their partners from different countries of origin

Measure: Twelve motives

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|--------|------|---------------------|
| Motives | 243.958 | 11 | 22.178 | 21.626 | .000 | .419 |
| Error (motives) | 338.427 | 330 | 1.026 | | | |

Separate pairwise comparisons were also conducted using the Bonferroni method to control for Type I errors across the tests as presented in Table 27. The results indicated the personal liking is the most significant motivator followed by physical attractiveness and similarity motives. However, by looking at each single item on both propinquity and mere exposure subscales, the test showed a slightly different significance on the motivators from the previous test above. "Same social activity" on both propinquity and mere exposure scales indicated as relatively a strong motivator followed by "same class" on mere exposure. "Same class" on propinquity, and "live closely" and "work closely" on mere exposure are slightly stronger than social isolation and psychological stress motivator. "Work closely" and "live closely" on propinquity scale are nearly same as the least important motivators.

Table 27. Pairwise comparisons between twelve motivators within international students with their partners from different countries of origin

Measure: motives

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.143* | .241 | .003 | .242 | 2.045 |
| | 3 | 1.079* | .205 | .001 | .310 | 1.848 |
| | 4 | 1.014* | .208 | .002 | .235 | 1.794 |
| | 5 | .498 | .253 | 1.000 | -.451 | 1.448 |
| | 6 | 1.014* | .206 | .002 | .241 | 1.787 |
| | 7 | 1.047* | .176 | .000 | .385 | 1.708 |
| | 8 | .756 | .218 | .105 | -.061 | 1.573 |
| | 9 | .563 | .247 | 1.000 | -.364 | 1.490 |
| | 10 | 1.055* | .212 | .002 | .259 | 1.850 |
| | 11 | -.470 | .244 | 1.000 | -1.384 | .444 |
| | 12 | -1.674* | .153 | .000 | -2.248 | -1.100 |
| | 2 | 1 | -1.143* | .241 | .003 | -2.045 |
| 3 | | -.065 | .222 | 1.000 | -.897 | .768 |
| 4 | | -.129 | .307 | 1.000 | -1.279 | 1.021 |
| 5 | | -.645 | .280 | 1.000 | -1.696 | .406 |
| 6 | | -.129 | .137 | 1.000 | -.643 | .385 |
| 7 | | -.097 | .251 | 1.000 | -1.039 | .845 |
| 8 | | -.387 | .320 | 1.000 | -1.588 | .813 |
| 9 | | -.581 | .261 | 1.000 | -1.561 | .399 |
| 10 | | -.089 | .232 | 1.000 | -.957 | .780 |
| 11 | | -1.613* | .230 | .000 | -2.477 | -.749 |
| 12 | | -2.817* | .204 | .000 | -3.583 | -2.051 |
| 3 | | 1 | -1.079* | .205 | .001 | -1.848 |
| | 2 | .065 | .222 | 1.000 | -.768 | .897 |
| | 4 | -.065 | .304 | 1.000 | -1.204 | 1.075 |
| | 5 | -.581 | .292 | 1.000 | -1.677 | .516 |
| | 6 | -.065 | .241 | 1.000 | -.967 | .838 |
| | 7 | -.032 | .194 | 1.000 | -.759 | .695 |
| | 8 | -.323 | .309 | 1.000 | -1.481 | .836 |
| | 9 | -.516 | .274 | 1.000 | -1.543 | .510 |
| | 10 | -.024 | .200 | 1.000 | -.774 | .725 |
| | 11 | -1.548* | .262 | .000 | -2.529 | -.567 |
| | 12 | -2.753* | .197 | .000 | -3.490 | -2.015 |
| | 4 | 1 | -1.014* | .208 | .002 | -1.794 |
| 2 | | .129 | .307 | 1.000 | -1.021 | 1.279 |
| 3 | | .065 | .304 | 1.000 | -1.075 | 1.204 |
| 5 | | -.516 | .371 | 1.000 | -1.906 | .873 |
| 6 | | .000 | .311 | 1.000 | -1.166 | 1.166 |
| 7 | | .032 | .299 | 1.000 | -1.087 | 1.152 |
| 8 | | -.258 | .146 | 1.000 | -.807 | .291 |
| 9 | | -.452 | .359 | 1.000 | -1.796 | .893 |
| 10 | | .040 | .319 | 1.000 | -1.156 | 1.236 |
| 11 | | -1.484* | .324 | .005 | -2.699 | -.269 |
| 12 | | -2.688* | .265 | .000 | -3.683 | -1.693 |

Continued:

| | | | | | | |
|----|----|---------|---------|-------|--------|--------|
| 5 | 1 | -.498 | .253 | 1.000 | -1.448 | .451 |
| | 2 | .645 | .280 | 1.000 | -.406 | 1.696 |
| | 3 | .581 | .292 | 1.000 | -.516 | 1.677 |
| | 4 | .516 | .371 | 1.000 | -.873 | 1.906 |
| | 6 | .516 | .231 | 1.000 | -.351 | 1.383 |
| | 7 | .548 | .207 | .830 | -.226 | 1.323 |
| | 8 | .258 | .328 | 1.000 | -.971 | 1.487 |
| | 9 | .065 | .092 | 1.000 | -.280 | .409 |
| | 10 | .556 | .301 | 1.000 | -.571 | 1.684 |
| | 11 | -.968 | .329 | .417 | -2.203 | .268 |
| | 12 | -2.172* | .282 | .000 | -3.229 | -1.115 |
| | 6 | 1 | -1.014* | .206 | .002 | -1.787 |
| 2 | | .129 | .137 | 1.000 | -.385 | .643 |
| 3 | | .065 | .241 | 1.000 | -.838 | .967 |
| 4 | | .000 | .311 | 1.000 | -1.166 | 1.166 |
| 5 | | -.516 | .231 | 1.000 | -1.383 | .351 |
| 7 | | .032 | .229 | 1.000 | -.828 | .892 |
| 8 | | -.258 | .304 | 1.000 | -1.398 | .882 |
| 9 | | -.452 | .226 | 1.000 | -1.300 | .397 |
| 10 | | .040 | .225 | 1.000 | -.804 | .884 |
| 11 | | -1.484* | .253 | .000 | -2.434 | -.534 |
| 12 | | -2.688* | .195 | .000 | -3.421 | -1.955 |
| 7 | | 1 | -1.047* | .176 | .000 | -1.708 |
| | 2 | .097 | .251 | 1.000 | -.845 | 1.039 |
| | 3 | .032 | .194 | 1.000 | -.695 | .759 |
| | 4 | -.032 | .299 | 1.000 | -1.152 | 1.087 |
| | 5 | -.548 | .207 | .830 | -1.323 | .226 |
| | 6 | -.032 | .229 | 1.000 | -.892 | .828 |
| | 8 | -.290 | .283 | 1.000 | -1.351 | .770 |
| | 9 | -.484 | .201 | 1.000 | -1.239 | .271 |
| | 10 | .008 | .239 | 1.000 | -.888 | .905 |
| | 11 | -1.516* | .278 | .000 | -2.557 | -.475 |
| | 12 | -2.720* | .210 | .000 | -3.509 | -1.932 |
| | 8 | 1 | -.756 | .218 | .105 | -1.573 |
| 2 | | .387 | .320 | 1.000 | -.813 | 1.588 |
| 3 | | .323 | .309 | 1.000 | -.836 | 1.481 |
| 4 | | .258 | .146 | 1.000 | -.291 | .807 |
| 5 | | -.258 | .328 | 1.000 | -1.487 | .971 |
| 6 | | .258 | .304 | 1.000 | -.882 | 1.398 |
| 7 | | .290 | .283 | 1.000 | -.770 | 1.351 |
| 9 | | -.194 | .323 | 1.000 | -1.403 | 1.016 |
| 10 | | .298 | .314 | 1.000 | -.880 | 1.477 |
| 11 | | -1.226* | .317 | .036 | -2.414 | -.038 |
| 12 | | -2.430* | .269 | .000 | -3.438 | -1.423 |
| 9 | | 1 | -.563 | .247 | 1.000 | -1.490 |
| | 2 | .581 | .261 | 1.000 | -.399 | 1.561 |
| | 3 | .516 | .274 | 1.000 | -.510 | 1.543 |
| | 4 | .452 | .359 | 1.000 | -.893 | 1.796 |
| | 5 | -.065 | .092 | 1.000 | -.409 | .280 |
| | 6 | .452 | .226 | 1.000 | -.397 | 1.300 |
| | 7 | .484 | .201 | 1.000 | -.271 | 1.239 |
| | 8 | .194 | .323 | 1.000 | -1.016 | 1.403 |
| | 10 | .492 | .280 | 1.000 | -.556 | 1.540 |
| | 11 | -1.032 | .306 | .135 | -2.179 | .114 |
| | 12 | -2.237* | .267 | .000 | -3.239 | -1.234 |

Continued:

| | | | | | | |
|----|----|---------|--------|-------|--------|--------|
| 10 | 1 | -1.055* | .212 | .002 | -1.850 | -.259 |
| | 2 | .089 | .232 | 1.000 | -.780 | .957 |
| | 3 | .024 | .200 | 1.000 | -.725 | .774 |
| | 4 | -.040 | .319 | 1.000 | -1.236 | 1.156 |
| | 5 | -.556 | .301 | 1.000 | -1.684 | .571 |
| | 6 | -.040 | .225 | 1.000 | -.884 | .804 |
| | 7 | -.008 | .239 | 1.000 | -.905 | .888 |
| | 8 | -.298 | .314 | 1.000 | -1.477 | .880 |
| | 9 | -.492 | .280 | 1.000 | -1.540 | .556 |
| | 11 | -1.524* | .229 | .000 | -2.382 | -.667 |
| | 12 | -2.728* | .188 | .000 | -3.432 | -2.025 |
| | 11 | 1 | .470 | .244 | 1.000 | -.444 |
| 2 | | 1.613* | .230 | .000 | .749 | 2.477 |
| 3 | | 1.548* | .262 | .000 | .567 | 2.529 |
| 4 | | 1.484* | .324 | .005 | .269 | 2.699 |
| 5 | | .968 | .329 | .417 | -.268 | 2.203 |
| 6 | | 1.484* | .253 | .000 | .534 | 2.434 |
| 7 | | 1.516* | .278 | .000 | .475 | 2.557 |
| 8 | | 1.226* | .317 | .036 | .038 | 2.414 |
| 9 | | 1.032 | .306 | .135 | -.114 | 2.179 |
| 10 | | 1.524* | .229 | .000 | .667 | 2.382 |
| 12 | | -1.204* | .197 | .000 | -1.941 | -.467 |
| 12 | | 1 | 1.674* | .153 | .000 | 1.100 |
| | 2 | 2.817* | .204 | .000 | 2.051 | 3.583 |
| | 3 | 2.753* | .197 | .000 | 2.015 | 3.490 |
| | 4 | 2.688* | .265 | .000 | 1.693 | 3.683 |
| | 5 | 2.172* | .282 | .000 | 1.115 | 3.229 |
| | 6 | 2.688* | .195 | .000 | 1.955 | 3.421 |
| | 7 | 2.720* | .210 | .000 | 1.932 | 3.509 |
| | 8 | 2.430* | .269 | .000 | 1.423 | 3.438 |
| | 9 | 2.237* | .267 | .000 | 1.234 | 3.239 |
| | 10 | 2.728* | .188 | .000 | 2.025 | 3.432 |
| | 11 | 1.204* | .197 | .000 | .467 | 1.941 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity – Live closely, 3 = Propinquity – Work closely, 4 = Propinquity – Same class, 5 = Propinquity – Same social activity, 6 = Mere exposure – Live closely, 7 = Mere exposure – Work closely, 8 = Mere exposure – Same class, 9 = Mere exposure – Same social activity, 10 = Social isolation and psychological stress, 11 = Physical attractiveness, and 12 = Personal liking.

Overall, the results from this study indicated personal liking is the most significant motivator for international students to develop romantic relationships with other students from different countries of origin. The data also indicated that physical attractiveness has also significant effect for them to develop their romantic relationships followed by similarity.

RQ 1c: What are the main motivators for international students to develop romantic relationships with American students?

A one-way repeated measures ANOVA was conducted to analyze this research question. The within-subjects factor was the international students who developed relationships with American students, and the dependent variables were six motives. The means and standard deviations for scores of the motivators are presented in Table 28. As shown in Table 28, the highest mean score was the personal liking. The next highest mean was physical attractiveness. Similarity was the third highest mean followed by Social isolation and psychological stress and mere exposure. Propinquity was the lowest mean score.

Table 28. Means and standard deviations for six motivators among international students with American students

| Name of Scale | Mean | SD | N |
|---|------|------|----|
| Similarity (3) | 2.74 | .59 | 24 |
| Propinquity (6) | 1.55 | .72 | 24 |
| Mere exposure (4) | 1.85 | .80 | 24 |
| Social isolation and psychological stress (5) | 1.68 | .97 | 24 |
| Physical attractiveness (2) | 3.42 | 1.10 | 24 |
| Personal liking (1) | 4.72 | .32 | 24 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

The results from the repeated ANOVA indicated a significant difference among six motives, $F(5, 115) = 68.26, p < .001, \eta^2 = .75$ (see Table 29). These results

suggested that six motivators affected differently for international students to develop romantic relationships with American students.

Table 29. Repeated measures ANOVA results for six motives within international students with American students

Measure: Twelve motivators

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|--------|------|---------------------|
| Motives | 184.204 | 5 | 36.841 | 68.264 | .000 | .748 |
| Error (motives) | 62.063 | 115 | .540 | | | |

Pairwise comparisons were performed to evaluate the different effect on six motives for development of relationship using the Bonferroni method to control for Type I errors across the tests (see Table 30). Pairwise comparisons displayed significant mean differences between most of the levels of motives. Those mean differences are not significant were between physical attractiveness and similarity .67, $p = .16$, mere exposure and propinquity .30, $p = .40$, social isolation and psychological and stress propinquity .13, $p = 1.0$, mere exposure and social isolation and psychological stress .18, $p = 1.0$. The results showed that personal liking is the most significant motivator for international students to develop their relationship with American students while physical attractiveness is the next important motivator. The third strongest motivator is similarity. Mere exposure is the fourth followed by social isolation and psychological stress. Propinquity is the least significant motivator.

Table 30. Pairwise comparisons between six motives within international students with American students

Measure: motives

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.191* | .146 | .000 | .712 | 1.670 |
| | 3 | .889* | .169 | .000 | .337 | 1.441 |
| | 4 | 1.066* | .247 | .004 | .257 | 1.875 |
| | 5 | -.674 | .243 | .163 | -1.469 | .122 |
| | 6 | -1.979* | .124 | .000 | -2.386 | -1.572 |
| 2 | 1 | -1.191* | .146 | .000 | -1.670 | -.712 |
| | 3 | -.302 | .128 | .402 | -.720 | .116 |
| | 4 | -.125 | .251 | 1.000 | -.946 | .696 |
| | 5 | -1.865* | .222 | .000 | -2.592 | -1.137 |
| | 6 | -3.170* | .161 | .000 | -3.699 | -2.642 |
| 3 | 1 | -.889* | .169 | .000 | -1.441 | -.337 |
| | 2 | .302 | .128 | .402 | -.116 | .720 |
| | 4 | .177 | .257 | 1.000 | -.665 | 1.020 |
| | 5 | -1.563* | .265 | .000 | -2.429 | -.696 |
| | 6 | -2.868* | .164 | .000 | -3.406 | -2.330 |
| 4 | 1 | -1.066* | .247 | .004 | -1.875 | -.257 |
| | 2 | .125 | .251 | 1.000 | -.696 | .946 |
| | 3 | -.177 | .257 | 1.000 | -1.020 | .665 |
| | 5 | -1.740* | .283 | .000 | -2.665 | -.815 |
| | 6 | -3.045* | .214 | .000 | -3.745 | -2.346 |
| 5 | 1 | .674 | .243 | .163 | -.122 | 1.469 |
| | 2 | 1.865* | .222 | .000 | 1.137 | 2.592 |
| | 3 | 1.563* | .265 | .000 | .696 | 2.429 |
| | 4 | 1.740* | .283 | .000 | .815 | 2.665 |
| | 6 | -1.306* | .214 | .000 | -2.007 | -.604 |
| 6 | 1 | 1.979* | .124 | .000 | 1.572 | 2.386 |
| | 2 | 3.170* | .161 | .000 | 2.642 | 3.699 |
| | 3 | 2.868* | .164 | .000 | 2.330 | 3.406 |
| | 4 | 3.045* | .214 | .000 | 2.346 | 3.745 |
| | 5 | 1.306* | .214 | .000 | .604 | 2.007 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity, 3 = Mere exposure, 4 = Social isolation and psychological stress, 5 = Physical attractiveness, and 6 = Personal liking.

Additionally, another separate repeated measures ANOVA was performed in order to analyze single items of propinquity and mere exposure subscales. Separate analysis was needed to conduct beside above analysis because each item measured different dimensions of those subscales. Those single items examined for propinquity were: live closely, work closely, same class, and same social activity. Similar to propinquity, the single items analyzed for mere exposure were: live closely, work closely, same class, and same social activity. The within-subjects factor was the international students, who developed relationships with American students, and the dependent variables were twelve motives. The mean scores and standard deviations of the total sample are presented in Table 31. The mean scores and standard deviations for similarity ($M = 2.74$, $SD = .59$), social isolation and psychological stress ($M = 1.68$, $SD = .97$), physical attractiveness ($M = 3.42$, $SD = 1.10$) and personal liking ($M = 4.72$, $SD = .32$) were the same as the previous result as above. In looking at the mean scores and standard deviations for the each item of propinquity shown in Table 24, “live closely” was 1.42 ($SD = .83$), “work closely” was 1.42 ($SD = .97$), “same class” was 1.92 ($SD = 1.47$), and “same social activity” was 1.46 ($SD = .98$). The mean scores and standard deviation for single items of mere exposure were presented in Table 24: “live closely” ($M = 2.00$, $SD = 1.41$), “work closely” ($M = 1.71$, $SD = 1.12$), “same class” ($M = 2.17$, $SD = 1.37$), and “same social activity” ($M = 1.54$, $SD = .93$). From these results, although there were some slightly differences in the mean scores, it appears that personal liking is again a relatively significant motivator for

international students who developed relationship in this study followed by physical attractiveness.

The result from the separate one-way repeated measures ANOVA also revealed a significant difference among the motivating factors, $F(11, 253) = 23.96$, $p < .001$, $\eta^2 = .53$ (see Table 32).

Table 31. Means and standard deviations for twelve motivators among international students with American students (single items of propinquity and mere exposure subscales)

| Name of Scale | Mean | SD | N |
|---|------|------|-----|
| Similarity (3) | 2.74 | .59 | 24 |
| Propinquity | --- | --- | --- |
| Live closely (11) | 1.42 | .83 | 24 |
| Work closely (11) | 1.42 | .97 | 24 |
| Same class (6) | 1.92 | 1.47 | 24 |
| Same social activity (10) | 1.46 | .98 | 24 |
| Mere exposure | --- | --- | --- |
| Live closely (5) | 2.00 | 1.41 | 24 |
| Work closely (7) | 1.71 | 1.12 | 24 |
| Same class (4) | 2.17 | 1.37 | 24 |
| Same social activity (9) | 1.54 | .93 | 24 |
| Social isolation and psychological stress (8) | 1.68 | .97 | 24 |
| Physical attractiveness (2) | 3.42 | 1.10 | 24 |
| Personal liking (1) | 4.72 | .32 | 24 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

Table 32. Repeated measures ANOVA results for twelve motivators within international students with American students

Measure: Twelve motives

| Within-subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------|-------------------------|-----|-------------|--------|------|---------------------|
| Motives | 263.524 | 11 | 23.957 | 26.121 | .000 | .532 |
| Error (motives) | 232.042 | 253 | .917 | | | |

The result of the separate pairwise comparisons was conducted using the Bonferroni method to control for Type I errors across the tests (see Table 33). The results also indicated that the personal liking is the most significant motivator followed by physical attractiveness and similarity. The following important motivator is “same class” in mere exposure while “live closely” in mere exposure is the fifth. “Same class” in propinquity is slightly less significant than above two items. Then, “work closely” in mere exposure is followed slightly stronger than social isolation and psychological stress. “Same social activity” on mere exposure is followed by “same social activity on propinquity. Both “live closely” and “work closely” in propinquity are the least significant motivator.

Table 33. Pairwise comparisons between twelve motivators within international students with American students

Measure: motives

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.326* | .164 | .000 | .688 | 1.964 |
| | 3 | 1.326* | .163 | .000 | .693 | 1.960 |
| | 4 | .826 | .318 | 1.000 | -.407 | 2.059 |
| | 5 | 1.285* | .208 | .000 | .478 | 2.091 |
| | 6 | .743 | .302 | 1.000 | -.430 | 1.916 |
| | 7 | 1.035* | .222 | .007 | .173 | 1.896 |
| | 8 | .576 | .289 | 1.000 | -.546 | 1.699 |
| | 9 | 1.201* | .182 | .000 | .495 | 1.908 |
| | 10 | 1.066* | .247 | .017 | .108 | 2.024 |
| | 11 | -.674 | .243 | .715 | -1.616 | .269 |
| | 12 | -1.979* | .124 | .000 | -2.462 | -1.497 |
| | 2 | 1 | -1.326* | .164 | .000 | -1.964 |
| 3 | | .000 | .170 | 1.000 | -.661 | .661 |
| 4 | | -.500 | .324 | 1.000 | -1.758 | .758 |
| 5 | | -.042 | .213 | 1.000 | -.867 | .783 |
| 6 | | -.583 | .232 | 1.000 | -1.485 | .319 |
| 7 | | -.292 | .229 | 1.000 | -1.180 | .597 |
| 8 | | -.750 | .308 | 1.000 | -1.947 | .447 |
| 9 | | -.125 | .211 | 1.000 | -.944 | .694 |
| 10 | | -.260 | .219 | 1.000 | -1.111 | .591 |
| 11 | | -2.000* | .233 | .000 | -2.905 | -1.095 |
| 12 | | -3.306* | .184 | .000 | -4.019 | -2.592 |
| 3 | | 1 | -1.326* | .163 | .000 | -1.960 |
| | 2 | .000 | .170 | 1.000 | -.661 | .661 |
| | 4 | -.500 | .324 | 1.000 | -1.758 | .758 |
| | 5 | -.042 | .204 | 1.000 | -.833 | .750 |
| | 6 | -.583 | .300 | 1.000 | -1.749 | .582 |
| | 7 | -.292 | .153 | 1.000 | -.886 | .303 |
| | 8 | -.750 | .320 | 1.000 | -1.991 | .491 |
| | 9 | -.125 | .202 | 1.000 | -.911 | .661 |
| | 10 | -.260 | .303 | 1.000 | -1.435 | .914 |
| | 11 | -2.000* | .255 | .000 | -2.991 | -1.009 |
| | 12 | -3.306* | .217 | .000 | -4.147 | -2.464 |
| | 4 | 1 | -.826 | .318 | 1.000 | -2.059 |
| 2 | | .500 | .324 | 1.000 | -.758 | 1.758 |
| 3 | | .500 | .324 | 1.000 | -.758 | 1.758 |
| 5 | | .458 | .351 | 1.000 | -.903 | 1.820 |
| 6 | | -.083 | .399 | 1.000 | -1.631 | 1.464 |
| 7 | | .208 | .346 | 1.000 | -1.133 | 1.550 |
| 8 | | -.250 | .162 | 1.000 | -.879 | .379 |
| 9 | | .375 | .389 | 1.000 | -1.135 | 1.885 |
| 10 | | .240 | .378 | 1.000 | -1.226 | 1.706 |
| 11 | | -1.500* | .313 | .005 | -2.714 | -.286 |
| 12 | | -2.806* | .287 | .000 | -3.917 | -1.694 |

Continued:

| | | | | | | |
|----|----|---------|---------|-------|--------|--------|
| 5 | 1 | -1.285* | .208 | .000 | -2.091 | -.478 |
| | 2 | .042 | .213 | 1.000 | -.783 | .867 |
| | 3 | .042 | .204 | 1.000 | -.750 | .833 |
| | 4 | -.458 | .351 | 1.000 | -1.820 | .903 |
| | 6 | -.542 | .318 | 1.000 | -1.777 | .694 |
| | 7 | -.250 | .235 | 1.000 | -1.162 | .662 |
| | 8 | -.708 | .332 | 1.000 | -1.998 | .581 |
| | 9 | -.083 | .240 | 1.000 | -1.015 | .848 |
| | 10 | -.219 | .286 | 1.000 | -1.327 | .890 |
| | 11 | -1.958* | .304 | .000 | -3.137 | -.779 |
| | 12 | -3.264* | .231 | .000 | -4.162 | -2.366 |
| | 6 | 1 | -.743 | .302 | 1.000 | -1.916 |
| 2 | | .583 | .232 | 1.000 | -.319 | 1.485 |
| 3 | | .583 | .300 | 1.000 | -.582 | 1.749 |
| 4 | | .083 | .399 | 1.000 | -1.464 | 1.631 |
| 5 | | .542 | .318 | 1.000 | -.694 | 1.777 |
| 7 | | .292 | .266 | 1.000 | -.739 | 1.322 |
| 8 | | -.167 | .393 | 1.000 | -1.692 | 1.359 |
| 9 | | .458 | .307 | 1.000 | -.732 | 1.649 |
| 10 | | .323 | .289 | 1.000 | -.799 | 1.445 |
| 11 | | -1.417* | .324 | .015 | -2.673 | -.161 |
| 12 | | -2.722* | .288 | .000 | -3.839 | -1.606 |
| 7 | | 1 | -1.035* | .222 | .007 | -1.896 |
| | 2 | .292 | .229 | 1.000 | -.597 | 1.180 |
| | 3 | .292 | .153 | 1.000 | -.303 | .886 |
| | 4 | -.208 | .346 | 1.000 | -1.550 | 1.133 |
| | 5 | .250 | .235 | 1.000 | -.662 | 1.162 |
| | 6 | -.292 | .266 | 1.000 | -1.322 | .739 |
| | 8 | -.458 | .318 | 1.000 | -1.694 | .777 |
| | 9 | .167 | .197 | 1.000 | -.596 | .929 |
| | 10 | .031 | .319 | 1.000 | -1.206 | 1.269 |
| | 11 | -1.708* | .298 | .001 | -2.864 | -.553 |
| | 12 | -3.014* | .238 | .000 | -3.937 | -2.091 |
| | 8 | 1 | -.576 | .289 | 1.000 | -1.699 |
| 2 | | .750 | .308 | 1.000 | -.447 | 1.947 |
| 3 | | .750 | .320 | 1.000 | -.491 | 1.991 |
| 4 | | .250 | .162 | 1.000 | -.379 | .879 |
| 5 | | .708 | .332 | 1.000 | -.581 | 1.998 |
| 6 | | .167 | .393 | 1.000 | -1.359 | 1.692 |
| 7 | | .458 | .318 | 1.000 | -.777 | 1.694 |
| 9 | | .625 | .340 | 1.000 | -.692 | 1.942 |
| 10 | | .490 | .383 | 1.000 | -.996 | 1.975 |
| 11 | | -1.250 | .357 | .128 | -2.637 | .137 |
| 12 | | -2.556* | .263 | .000 | -3.576 | -1.536 |
| 9 | | 1 | -1.201* | .182 | .000 | -1.908 |
| | 2 | .125 | .211 | 1.000 | -.694 | .944 |
| | 3 | .125 | .202 | 1.000 | -.661 | .911 |
| | 4 | -.375 | .389 | 1.000 | -1.885 | 1.135 |
| | 5 | .083 | .240 | 1.000 | -.848 | 1.015 |
| | 6 | -.458 | .307 | 1.000 | -1.649 | .732 |
| | 7 | -.167 | .197 | 1.000 | -.929 | .596 |
| | 8 | -.625 | .340 | 1.000 | -1.942 | .692 |
| | 10 | -.135 | .277 | 1.000 | -1.209 | .938 |
| | 11 | -1.875* | .320 | .000 | -3.118 | -.632 |
| | 12 | -3.181* | .208 | .000 | -3.986 | -2.375 |

Continued:

| | | | | | | |
|----|----|---------|--------|-------|--------|--------|
| 10 | 1 | -1.066* | .247 | .017 | -2.024 | -.108 |
| | 2 | .260 | .219 | 1.000 | -.591 | 1.111 |
| | 3 | .260 | .303 | 1.000 | -.914 | 1.435 |
| | 4 | -.240 | .378 | 1.000 | -1.706 | 1.226 |
| | 5 | .219 | .286 | 1.000 | -.890 | 1.327 |
| | 6 | -.323 | .289 | 1.000 | -1.445 | .799 |
| | 7 | -.031 | .319 | 1.000 | -1.269 | 1.206 |
| | 8 | -.490 | .383 | 1.000 | -1.975 | .996 |
| | 9 | .135 | .277 | 1.000 | -.938 | 1.209 |
| | 11 | -1.740* | .283 | .000 | -2.836 | -.643 |
| | 12 | -3.045* | .214 | .000 | -3.874 | -2.216 |
| | 11 | 1 | .674 | .243 | .715 | -.269 |
| 2 | | 2.000* | .233 | .000 | 1.095 | 2.905 |
| 3 | | 2.000* | .255 | .000 | 1.009 | 2.991 |
| 4 | | 1.500* | .313 | .005 | .286 | 2.714 |
| 5 | | 1.958* | .304 | .000 | .779 | 3.137 |
| 6 | | 1.417* | .324 | .015 | .161 | 2.673 |
| 7 | | 1.708* | .298 | .001 | .553 | 2.864 |
| 8 | | 1.250 | .357 | .128 | -.137 | 2.637 |
| 9 | | 1.875* | .320 | .000 | .632 | 3.118 |
| 10 | | 1.740* | .283 | .000 | .643 | 2.836 |
| 12 | | -1.306* | .214 | .000 | -2.136 | -.475 |
| 12 | | 1 | 1.979* | .124 | .000 | 1.497 |
| | 2 | 3.306* | .184 | .000 | 2.592 | 4.019 |
| | 3 | 3.306* | .217 | .000 | 2.464 | 4.147 |
| | 4 | 2.806* | .287 | .000 | 1.694 | 3.917 |
| | 5 | 3.264* | .231 | .000 | 2.366 | 4.162 |
| | 6 | 2.722* | .288 | .000 | 1.606 | 3.839 |
| | 7 | 3.014* | .238 | .000 | 2.091 | 3.937 |
| | 8 | 2.556* | .263 | .000 | 1.536 | 3.576 |
| | 9 | 3.181* | .208 | .000 | 2.375 | 3.986 |
| | 10 | 3.045* | .214 | .000 | 2.216 | 3.874 |
| | 11 | 1.306* | .214 | .000 | .475 | 2.136 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity – Live closely, 3 = Propinquity – Work closely, 4 = Propinquity – Same class, 5 = Propinquity – Same social activity, 6 = Mere exposure – Live closely, 7 = Mere exposure – Work closely, 8 = Mere exposure – Same class, 9 = Mere exposure – Same social activity, 10 = Social isolation and psychological stress, 11 = Physical attractiveness, and 12 = Personal liking.

In summary, the data in this study indicated that personal liking is the major motivator for international students to develop romantic relationships with American students. Those students also reported physical attractiveness is significantly important motivator followed by similarity.

RQ 2: What are the main similarities and differences in terms of six motivators between three groups of the romantic relationships developed by international students?

To analyze this research question, first a mixed design analysis of variance (ANOVA) was conducted. Then, one-way ANOVA was performed to evaluate the main similarities and differences on each motivator among three groups of international students' romantic relationships. Lastly, post hoc comparison tests were conducted to determine which groups of the romantic relationships differ from one another.

The between-subjects factor was the three groups developed by the international students; international students who developed the relationships with others from the same countries of origin, with others from different countries of origin, and with American students, and the within-subjects were six motives. The means and standard deviations for scores of the motivators of three relationship groups are presented in Table 34. As shown in Table 34, the highest mean score was the personal liking in the three relationship groups. The next highest mean was physical attractiveness. Similarity was the third highest mean followed by Social isolation and psychological stress and mere exposure. Propinquity was the lowest mean score.

Table 34. Means and standard deviations for six motivators among three groups of romantic relationships developed by international students

| | Partner's Country? | Mean | SD | N |
|---|--------------------|------|------|----|
| Similarity (3) | Same | 3.22 | .56 | 40 |
| | Different | 2.89 | .81 | 31 |
| | American | 2.74 | .59 | 24 |
| | Total | 2.99 | .68 | 95 |
| Propinquity (6) | Same | 1.88 | .70 | 40 |
| | Different | 1.95 | .75 | 31 |
| | American | 1.55 | .72 | 24 |
| | Total | 1.82 | .73 | 95 |
| Mere exposure (4) | Same | 1.93 | .83 | 40 |
| | Different | 2.04 | .83 | 31 |
| | American | 1.85 | .80 | 24 |
| | Total | 1.95 | .82 | 95 |
| Social isolation and psychological stress (5) | Same | 2.13 | 1.03 | 40 |
| | Different | 1.83 | .69 | 31 |
| | American | 1.68 | .97 | 24 |
| | Total | 1.92 | .93 | 95 |
| Physical attractiveness (2) | Same | 3.22 | 1.39 | 40 |
| | Different | 3.35 | 1.14 | 31 |
| | American | 3.42 | 1.10 | 24 |
| | Total | 3.32 | 1.23 | 95 |
| Personal liking (1) | Same | 4.54 | .69 | 40 |
| | Different | 4.56 | .57 | 31 |
| | American | 4.72 | .32 | 24 |
| | Total | 4.59 | .58 | 95 |

Note: The scale is measured from 1 to 5, 1 being the lowest rating and 5 being the highest rating

As presented in Table 35, the results from the within-subjects effect indicated the motivator effect is significant, $F(5, 460) = 177.25, p < .001, \eta^2 = .66$. The *motivator* by *relationship_grp* interaction effect is not significant, $F(10, 460) = 1.411, p = .159, \eta^2 = .03$. The results from testing the between-subjects effect, three groups of relationships (*relationship_grp*), are shown in Table 35. The significance $p = .379$ indicated that this effect is not significant. These results suggested that there is a significant difference among the six motives. However, the interaction between the motives and three groups is not significant. Thus, the difference in the response to the six motives is the same for the three groups of relationships.

Table 35. Mixed design ANOVA results for six motivators and three relationship groups

Measure: Six motivators

| Within-Subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------------|-------------------------|-----|-------------|---------|------|---------------------|
| motivators | 559.728 | 5 | 111.946 | 177.247 | .000 | .658 |
| motivators * relationship_grp | 9.100 | 10 | .910 | 1.441 | .159 | .030 |
| Error | 290.527 | 460 | .632 | | | |

Measure: Six motivators

| Between-Subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|--------------------------|-------------------------|----|-------------|------|------|---------------------|
| relationship_grp | 2.342 | 2 | 1.171 | .980 | .379 | .021 |
| Error | 109.943 | 92 | 1.195 | | | |

Table 36. Pairwise comparisons between six motivators in three relationship groups

Measure: motive

| (I) motives | (J) motives | Mean Difference (I-J) | Std. Error | Sig. (a) | 95% Confidence Interval for Difference(a) | |
|-------------|-------------|-----------------------|------------|----------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.155* | .078 | .000 | .920 | 1.389 |
| | 3 | 1.008* | .087 | .000 | .746 | 1.269 |
| | 4 | 1.070* | .123 | .000 | .698 | 1.442 |
| | 5 | -.382 | .147 | .162 | -.825 | .060 |
| | 6 | -1.658* | .078 | .000 | -1.893 | -1.423 |
| 2 | 1 | -1.155* | .078 | .000 | -1.389 | -.920 |
| | 3 | -.147 | .059 | .211 | -.324 | .030 |
| | 4 | -.085 | .120 | 1.000 | -.447 | .278 |
| | 5 | -1.537* | .143 | .000 | -1.968 | -1.107 |
| | 6 | -2.813* | .098 | .000 | -3.109 | -2.517 |
| 3 | 1 | -1.008* | .087 | .000 | -1.269 | -.746 |
| | 2 | .147 | .059 | .211 | -.030 | .324 |
| | 4 | .062 | .122 | 1.000 | -.306 | .431 |
| | 5 | -1.390* | .155 | .000 | -1.858 | -.922 |
| | 6 | -2.666* | .106 | .000 | -2.984 | -2.347 |
| 4 | 1 | -1.070* | .123 | .000 | -1.442 | -.698 |
| | 2 | .085 | .120 | 1.000 | -.278 | .447 |
| | 3 | -.062 | .122 | 1.000 | -.431 | .306 |
| | 5 | -1.453* | .160 | .000 | -1.935 | -.970 |
| | 6 | -2.728* | .117 | .000 | -3.082 | -2.374 |
| 5 | 1 | .382 | .147 | .162 | -.060 | .825 |
| | 2 | 1.537* | .143 | .000 | 1.107 | 1.968 |
| | 3 | 1.390* | .155 | .000 | .922 | 1.858 |
| | 4 | 1.453* | .160 | .000 | .970 | 1.935 |
| | 6 | -1.276* | .119 | .000 | -1.635 | -.916 |
| 6 | 1 | 1.658* | .078 | .000 | 1.423 | 1.893 |
| | 2 | 2.813* | .098 | .000 | 2.517 | 3.109 |
| | 3 | 2.666* | .106 | .000 | 2.347 | 2.984 |
| | 4 | 2.728* | .117 | .000 | 2.374 | 3.082 |
| | 5 | 1.276* | .119 | .000 | .916 | 1.635 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity, 3 = Mere exposure, 4 = Social isolation and psychological stress, 5 = Physical attractiveness, and 6 = Personal liking.

Pairwise comparisons were conducted to find out which motivators are more significant than the others. Each pairwise comparison was tested using the Bonferroni procedure to control for Type I error across the multiple comparisons (see Table 36). The results from the pairwise comparisons displayed significant mean differences between most of the levels of motives. Those mean differences are not significant were between physical attractiveness and similarity $.382, p = .162$, mere exposure and propinquity $.147, p = 2.11$, social isolation and psychological and stress propinquity $.085, p = 1.0$, mere exposure and social isolation and psychological stress $.062, p = 1.0$.

Additionally, another separate mixed design ANOVA was performed subsequently in order to analyze single items of propinquity and mere exposure subscales. Separate analysis was necessary to conduct beside above analysis since each item of those subscales measured different dimensions. Those single items examined for propinquity were: live closely, work closely, same class, and same social activity. Similar to propinquity, the single items analyzed for mere exposure were: live closely, work closely, same class, and same social activity. The within-subjects factor was the three groups of romantic relationships developed by international students, and the dependent variables were twelve motives. The means and standard deviations for scores of the motivators of three relationship groups are presented in Table 37. As presented in Table 34, the highest mean score was the personal liking in the all three relationship groups. The next highest mean was physical attractiveness. Similarity was the third highest mean followed by “live

closely” and “same social activity” on mere exposure. “Same social activity” on propinquity was next and “same class” on mere exposure was followed. Social isolation and psychological stress was the seventh. “Live closely” on propinquity came next followed by “same class” on propinquity. “Work closely” on mere exposure was followed and “work closely” on propinquity is the lowest mean score.

As shown in Table 38, The results from the within-subjects effect indicated the motivators effect is significant, $F(11, 1012) = 68.95, p < .001, \eta^2 = .43$. The *motivators* by *relationship_grp* interaction effect is significant, $F(22, 1012) = 1.98, p < .01, \eta^2 = .04$. The results from testing the between-subjects effect, three groups of relationships (*relationship_grp*), are shown in Table 38. The significance $p = .329$ indicated that this effect is not significant. These results suggested that there is a significant difference among the twelve motivators and the interaction between the three romantic relationship groups and twelve motives is also significant. However, there is no significant difference among the three relationship groups. Thus, the difference in the response to the twelve motives is not the same for the three groups of relationships.

Table 37. Means and standard deviations for six motivators among three groups of romantic relationships developed by international students

| | Partner's Country? | Mean | SD | N |
|--|--------------------|------|------|----|
| Similarity (3) | Same | 3.22 | .56 | 40 |
| | Different | 2.89 | .81 | 31 |
| | American | 2.74 | .59 | 24 |
| | Total | 2.99 | .68 | 95 |
| Propinquity – Live Closely? (8) | Same | 2.23 | 1.48 | 40 |
| | Different | 1.74 | 1.13 | 31 |
| | American | 1.42 | .83 | 24 |
| | Total | 1.86 | 1.26 | 95 |
| Propinquity – Work Closely? (11) | Same | 1.43 | .71 | 40 |
| | Different | 1.81 | .98 | 31 |
| | American | 1.42 | .97 | 24 |
| | Total | 1.55 | .88 | 95 |
| Propinquity – Same Class? (9) | Same | 1.75 | 1.15 | 40 |
| | Different | 1.87 | 1.38 | 31 |
| | American | 1.92 | 1.47 | 24 |
| | Total | 1.83 | 1.30 | 95 |
| Propinquity – Same Social Activity? (5) | Same | 2.12 | 1.32 | 40 |
| | Different | 2.39 | 1.50 | 31 |
| | American | 1.46 | .98 | 24 |
| | Total | 2.04 | 1.34 | 95 |
| Mere exposure – Live Closely? (4) | Same | 2.25 | 1.46 | 40 |
| | Different | 1.87 | 1.02 | 31 |
| | American | 2.00 | 1.41 | 24 |
| | Total | 2.06 | 1.32 | 95 |
| Mere exposure – Work Closely? (10) | Same | 1.53 | .91 | 40 |
| | Different | 1.84 | 1.07 | 31 |
| | American | 1.71 | 1.12 | 24 |
| | Total | 1.67 | 1.02 | 95 |
| Mere exposure – Same Class? (6) | Same | 1.78 | 1.10 | 40 |
| | Different | 2.13 | 1.36 | 31 |
| | American | 2.17 | 1.37 | 24 |
| | Total | 1.99 | 1.26 | 95 |
| Mere exposure – Same Social Activity? (4) | Same | 2.18 | 1.45 | 40 |
| | Different | 2.32 | 1.40 | 31 |
| | American | 1.54 | .93 | 24 |
| | Total | 2.06 | 1.34 | 95 |
| Social isolation and psychological stress (7) | Same | 2.13 | 1.04 | 40 |
| | Different | 1.83 | .69 | 31 |
| | American | 1.68 | .97 | 24 |
| | Total | 1.92 | .93 | 95 |
| Physical attractiveness (2) | Same | 3.23 | 1.39 | 40 |
| | Different | 3.35 | 1.14 | 31 |
| | American | 3.42 | 1.10 | 24 |
| | Total | 3.32 | 1.23 | 95 |
| Personal liking (1) | Same | 4.54 | .69 | 40 |
| | Different | 4.56 | .57 | 31 |
| | American | 4.72 | .32 | 24 |
| | Total | 4.59 | .58 | 95 |

Table 38. Mixed design ANOVA results for twelve motivators and three relationship groups

Measure: Twelve motivators

| Within-Subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-------------------------------|-------------------------|------|-------------|--------|------|---------------------|
| motivators | 792.153 | 11 | 72.014 | 68.953 | .000 | .428 |
| motivators * relationship_grp | 43.572 | 22 | 1.981 | 1.896 | .008 | .040 |
| Error | 1056.928 | 1012 | 1.044 | | | |

Measure: Twelve motivators

| Between-Subjects Effects | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|--------------------------|-------------------------|----|-------------|-------|------|---------------------|
| relationship_grp | 7.878 | 2 | 3.939 | 1.126 | .329 | .024 |
| Error | 321.851 | 92 | 3.498 | | | |

In order to find out which motivators are more significant than the others among twelve motivators, separate pairwise comparisons were also conducted subsequently using the Bonferroni method to control for Type I errors across the tests (see Table 39). Pairwise comparisons displayed significant mean differences between similarity and other ten motivators except physical attractiveness $-.38, p = .71$, physical attractiveness and other ten motivators except similarity $.38, p = .71$, personal liking and other eleven motivators. There were no significant differences found in each item of propinquity and mere exposure.

Table 39. Pairwise comparisons between twelve motivators in three relationship groups

Measure: motives

| (I) motive | (J) motive | Mean Difference (I-J) | Std. Error | Sig.(a) | 95% Confidence Interval for Difference(a) | |
|------------|------------|-----------------------|------------|---------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | 1.155* | .136 | .000 | .682 | 1.628 |
| | 3 | 1.400* | .098 | .000 | 1.058 | 1.742 |
| | 4 | 1.104* | .139 | .000 | .620 | 1.588 |
| | 5 | .960* | .130 | .000 | .505 | 1.414 |
| | 6 | .909* | .142 | .000 | .413 | 1.406 |
| | 7 | 1.259* | .105 | .000 | .893 | 1.625 |
| | 8 | .926* | .134 | .000 | .461 | 1.392 |
| | 9 | .937* | .135 | .000 | .465 | 1.408 |
| | 10 | 1.070* | .123 | .000 | .640 | 1.500 |
| | 11 | -.382 | .147 | .712 | -.894 | .130 |
| | 12 | -1.658* | .078 | .000 | -1.929 | -1.387 |
| | 2 | 1 | -1.155* | .136 | .000 | -1.628 |
| 3 | | .245 | .121 | 1.000 | -.176 | .666 |
| 4 | | -.051 | .184 | 1.000 | -.693 | .590 |
| 5 | | -.196 | .165 | 1.000 | -.770 | .379 |
| 6 | | -.246 | .112 | 1.000 | -.635 | .143 |
| 7 | | .104 | .145 | 1.000 | -.401 | .609 |
| 8 | | -.229 | .187 | 1.000 | -.882 | .424 |
| 9 | | -.219 | .170 | 1.000 | -.811 | .374 |
| 10 | | -.085 | .158 | 1.000 | -.634 | .464 |
| 11 | | -1.538* | .183 | .000 | -2.176 | -.899 |
| 12 | | -2.813* | .147 | .000 | -3.325 | -2.302 |
| 3 | | 1 | -1.400* | .098 | .000 | -1.742 |
| | 2 | -.245 | .121 | 1.000 | -.666 | .176 |
| | 4 | -.297 | .157 | 1.000 | -.844 | .251 |
| | 5 | -.441 | .144 | .188 | -.942 | .060 |
| | 6 | -.491 | .144 | .064 | -.993 | .011 |
| | 7 | -.141 | .084 | 1.000 | -.435 | .153 |
| | 8 | -.474 | .160 | .256 | -1.032 | .083 |
| | 9 | -.464 | .148 | .155 | -.980 | .053 |
| | 10 | -.330 | .130 | .854 | -.784 | .124 |
| | 11 | -1.783* | .153 | .000 | -2.316 | -1.249 |
| | 12 | -3.058* | .114 | .000 | -3.455 | -2.662 |
| | 4 | 1 | -1.104* | .139 | .000 | -1.588 |
| 2 | | .051 | .184 | 1.000 | -.590 | .693 |
| 3 | | .297 | .157 | 1.000 | -.251 | .844 |
| 5 | | -.144 | .199 | 1.000 | -.837 | .549 |
| 6 | | -.194 | .192 | 1.000 | -.863 | .474 |
| 7 | | .155 | .161 | 1.000 | -.407 | .717 |
| 8 | | -.178 | .101 | 1.000 | -.530 | .174 |
| 9 | | -.167 | .200 | 1.000 | -.864 | .530 |
| 10 | | -.034 | .180 | 1.000 | -.661 | .593 |
| 11 | | -1.486* | .178 | .000 | -2.107 | -.865 |
| 12 | | -2.762* | .149 | .000 | -3.280 | -2.244 |

Continued:

| | | | | | | |
|----|----|---------|---------|-------|--------|--------|
| 5 | 1 | -.960* | .130 | .000 | -1.414 | -.505 |
| | 2 | .196 | .165 | 1.000 | -.379 | .770 |
| | 3 | .441 | .144 | .188 | -.060 | .942 |
| | 4 | .144 | .199 | 1.000 | -.549 | .837 |
| | 6 | -.050 | .155 | 1.000 | -.589 | .489 |
| | 7 | .299 | .131 | 1.000 | -.157 | .756 |
| | 8 | -.033 | .175 | 1.000 | -.643 | .576 |
| | 9 | -.023 | .087 | 1.000 | -.327 | .281 |
| | 10 | .110 | .154 | 1.000 | -.427 | .648 |
| | 11 | -1.342* | .181 | .000 | -1.974 | -.710 |
| | 12 | -2.618* | .149 | .000 | -3.136 | -2.099 |
| | 6 | 1 | -.909* | .142 | .000 | -1.406 |
| 2 | | .246 | .112 | 1.000 | -.143 | .635 |
| 3 | | .491 | .144 | .064 | -.011 | .993 |
| 4 | | .194 | .192 | 1.000 | -.474 | .863 |
| 5 | | .050 | .155 | 1.000 | -.489 | .589 |
| 7 | | .350 | .140 | .940 | -.138 | .837 |
| 8 | | .017 | .178 | 1.000 | -.604 | .637 |
| 9 | | .027 | .158 | 1.000 | -.523 | .577 |
| 10 | | .161 | .157 | 1.000 | -.387 | .708 |
| 11 | | -1.292* | .195 | .000 | -1.972 | -.612 |
| 12 | | -2.567* | .151 | .000 | -3.095 | -2.040 |
| 7 | | 1 | -1.259* | .105 | .000 | -1.625 |
| | 2 | -.104 | .145 | 1.000 | -.609 | .401 |
| | 3 | .141 | .084 | 1.000 | -.153 | .435 |
| | 4 | -.155 | .161 | 1.000 | -.717 | .407 |
| | 5 | -.299 | .131 | 1.000 | -.756 | .157 |
| | 6 | -.350 | .140 | .940 | -.837 | .138 |
| | 8 | -.333 | .155 | 1.000 | -.871 | .206 |
| | 9 | -.322 | .134 | 1.000 | -.789 | .144 |
| | 10 | -.189 | .144 | 1.000 | -.689 | .311 |
| | 11 | -1.641* | .166 | .000 | -2.220 | -1.063 |
| | 12 | -2.917* | .127 | .000 | -3.360 | -2.474 |
| | 8 | 1 | -.926* | .134 | .000 | -1.392 |
| 2 | | .229 | .187 | 1.000 | -.424 | .882 |
| 3 | | .474 | .160 | .256 | -.083 | 1.032 |
| 4 | | .178 | .101 | 1.000 | -.174 | .530 |
| 5 | | .033 | .175 | 1.000 | -.576 | .643 |
| 6 | | -.017 | .178 | 1.000 | -.637 | .604 |
| 7 | | .333 | .155 | 1.000 | -.206 | .871 |
| 9 | | .010 | .178 | 1.000 | -.608 | .629 |
| 10 | | .144 | .168 | 1.000 | -.440 | .728 |
| 11 | | -1.309* | .186 | .000 | -1.957 | -.660 |
| 12 | | -2.584* | .142 | .000 | -3.080 | -2.088 |
| 9 | | 1 | -.937* | .135 | .000 | -1.408 |
| | 2 | .219 | .170 | 1.000 | -.374 | .811 |
| | 3 | .464 | .148 | .155 | -.053 | .980 |
| | 4 | .167 | .200 | 1.000 | -.530 | .864 |
| | 5 | .023 | .087 | 1.000 | -.281 | .327 |
| | 6 | -.027 | .158 | 1.000 | -.577 | .523 |
| | 7 | .322 | .134 | 1.000 | -.144 | .789 |
| | 8 | -.010 | .178 | 1.000 | -.629 | .608 |
| | 10 | .133 | .154 | 1.000 | -.405 | .672 |
| | 11 | -1.319* | .183 | .000 | -1.958 | -.680 |
| | 12 | -2.595* | .151 | .000 | -3.120 | -2.069 |

Continued:

| | | | | | | |
|----|----|---------|--------|-------|--------|--------|
| 10 | 1 | -1.070* | .123 | .000 | -1.500 | -.640 |
| | 2 | .085 | .158 | 1.000 | -.464 | .634 |
| | 3 | .330 | .130 | .854 | -.124 | .784 |
| | 4 | .034 | .180 | 1.000 | -.593 | .661 |
| | 5 | -.110 | .154 | 1.000 | -.648 | .427 |
| | 6 | -.161 | .157 | 1.000 | -.708 | .387 |
| | 7 | .189 | .144 | 1.000 | -.311 | .689 |
| | 8 | -.144 | .168 | 1.000 | -.728 | .440 |
| | 9 | -.133 | .154 | 1.000 | -.672 | .405 |
| | 11 | -1.453* | .160 | .000 | -2.011 | -.894 |
| | 12 | -2.728* | .117 | .000 | -3.137 | -2.319 |
| | 11 | 1 | .382 | .147 | .712 | -.130 |
| 2 | | 1.538* | .183 | .000 | .899 | 2.176 |
| 3 | | 1.783* | .153 | .000 | 1.249 | 2.316 |
| 4 | | 1.486* | .178 | .000 | .865 | 2.107 |
| 5 | | 1.342* | .181 | .000 | .710 | 1.974 |
| 6 | | 1.292* | .195 | .000 | .612 | 1.972 |
| 7 | | 1.641* | .166 | .000 | 1.063 | 2.220 |
| 8 | | 1.309* | .186 | .000 | .660 | 1.957 |
| 9 | | 1.319* | .183 | .000 | .680 | 1.958 |
| 10 | | 1.453* | .160 | .000 | .894 | 2.011 |
| 12 | | -1.276* | .119 | .000 | -1.691 | -.860 |
| 12 | | 1 | 1.658* | .078 | .000 | 1.387 |
| | 2 | 2.813* | .147 | .000 | 2.302 | 3.325 |
| | 3 | 3.058* | .114 | .000 | 2.662 | 3.455 |
| | 4 | 2.762* | .149 | .000 | 2.244 | 3.280 |
| | 5 | 2.618* | .149 | .000 | 2.099 | 3.136 |
| | 6 | 2.567* | .151 | .000 | 2.040 | 3.095 |
| | 7 | 2.917* | .127 | .000 | 2.474 | 3.360 |
| | 8 | 2.584* | .142 | .000 | 2.088 | 3.080 |
| | 9 | 2.595* | .151 | .000 | 2.069 | 3.120 |
| | 10 | 2.728* | .117 | .000 | 2.319 | 3.137 |
| | 11 | 1.276* | .119 | .000 | .860 | 1.691 |

Based on estimated marginal means

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

a Adjustment for multiple comparisons: Bonferroni.

1 = Similarity, 2 = Propinquity – Live closely, 3 = Propinquity – Work closely, 4 = Propinquity – Same class, 5 = Propinquity – Same social activity, 6 = Mere exposure – Live closely, 7 = Mere exposure – Work closely, 8 = Mere exposure – Same class, 9 = Mere exposure – Same social activity, 10 = Social isolation and psychological stress, 11 = Physical attractiveness, and 12 = Personal liking.

The result of the mixed design ANOVA found a significance difference among the six motivators. In looking at the each item of propinquity and mere exposure, the results of the separate mixed design ANOVA indicated that there is a significant difference among the twelve motives and the interaction between the three romantic relationship groups and twelve motives is also significant. Subsequently, a one-way analysis of variance (ANOVA) was conducted to determine the effect of the each motivator on three groups of international students' romantic relationships. The independent variables were three groups of romantic relationships developed by international students: international students with other students from the same countries of origin, international students with other students from different countries of origin, and international students with American students. The dependent variables were six motivators, similarity, propinquity, mere exposure, social isolation and psychological stress, physical attractiveness, and personal liking. Those variables were examined separately. Additionally, single items for propinquity and mere exposure were also examined separately as variables.

1. Similarity

The results of the ANOVA indicated relatively significant relationship with the similarity motivator and three romantic relationship groups developed by international students, $F(2, 92) = 4.57, p < .05$. The η^2 of .09 showed that there were relatively significant differences on the similarity factor within each of the romantic relationship groups (see Table 40).

Table 40. One-way ANOVA results for similarity and three relationship groups

Dependent Variable: similarity

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-----------------|-------------------------|----|-------------|----------|------|---------------------|
| Corrected Model | 3.935(a) | 2 | 1.967 | 4.570 | .013 | .090 |
| Intercept | 791.594 | 1 | 791.594 | 1838.760 | .000 | .952 |
| country | 3.935 | 2 | 1.967 | 4.570 | .013 | .090 |
| Error | 39.606 | 92 | .431 | | | |
| Total | 893.216 | 95 | | | | |
| Corrected Total | 43.541 | 94 | | | | |

(a) R Squared = .090 (Adjusted R Squared = .071)

To determine which groups of the romantic relationships differ from one another, post hoc comparisons were conducted using the Dunnett's *C* test which does not require equal population variances. Levene's test had indicated that the variances among the groups differed significantly, $F(2, 92) = 3.38, p < .05$. Based on the results of Dunnett's *C*, there was a significant difference in the means between international students with others from the same countries of origin and international students with American students group, but no significant differences were found between international students with same country partners and with different country partners, and between international students with different country partners and with American partners. The 95% confidence intervals for the pairwise differences, as well as the means and standard deviations for the three romantic relationship groups, are reported in Table 41.

Table 41. 95% Confidence intervals of pairwise differences in mean changes in similarity

| Romantic relationship group | Mean | SD | Same countries of origin | Different countries of origin | N |
|-------------------------------|------|-----|--------------------------|-------------------------------|----|
| Same countries of origin | 3.22 | .56 | | | 40 |
| Different countries of origin | 2.89 | .81 | -.08 to -.75 | | 31 |
| American students | 2.74 | .59 | .11 to -.85* | -.32 to -.61 | 24 |

Propinquity

The results of the ANOVA indicated that there were no differences on the propinquity motive and three romantic relationship groups developed by international students, $F(2, 92) = 2.38, p = .10$. The means and standard deviations are presented in Table 42.

Table 42. Means and standard deviations of propinquity

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|-----|----|
| Same countries of origin | 1.88 | .70 | 40 |
| Different countries of origin | 1.95 | .75 | 31 |
| American students | 1.55 | .72 | 24 |

There are four items to measure the propinquity in this study: live closely, work closely, same class, and same social activity. Since each single item measured different content of the propinquity, these items were also examined separately.

a. Live closely

The one-way ANOVA was conducted and the result indicated significant differences on the item “live closely” in propinquity and three romantic relationship

groups developed by international students, $F(2, 92) = 3.47, p < .05$ (see Table 43).

The η^2 of .07 indicated a moderately strong relationship between the item “live closely” and the three romantic relationship groups.

Table 43. One-way ANOVA results for “live closely” on propinquity and three relationship groups

Dependent Variable: Live Closely?

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-----------------|-------------------------|----|-------------|---------|------|---------------------|
| Corrected Model | 10.477(a) | 2 | 5.239 | 3.474 | .035 | .070 |
| Intercept | 292.982 | 1 | 292.982 | 194.274 | .000 | .679 |
| country | 10.477 | 2 | 5.239 | 3.474 | .035 | .070 |
| Error | 138.744 | 92 | 1.508 | | | |
| Total | 479.000 | 95 | | | | |
| Corrected Total | 149.221 | 94 | | | | |

(a) R Squared = .070 (Adjusted R Squared = .050)

To evaluate the further differences among groups, post hoc comparisons were conducted using the Dunnett’s C test which does not require equal population variances. Levene’s test had indicated that the variances among the groups differed significantly, $F(2, 92) = 8.51, p < .001$. Based on the results of Dunnett’s C, there was a significant difference in the means between international students with others from the same countries of origin and international students with American students group, but no significant differences between international students with same country partners and with different country partners, and between international students with different country partners and with American partners. The 95% confidence intervals

for the pairwise differences, as well as the means and standard deviations for the three romantic relationship groups, are reported in Table 44.

Table 44. 95% Confidence intervals of pairwise differences in mean changes in “live closely” on propinquity

| Romantic relationship group | Mean | SD | Same countries of origin | Different countries of origin | N |
|-------------------------------|------|------|--------------------------|-------------------------------|----|
| Same countries of origin | 2.23 | 1.48 | | | 40 |
| Different countries of origin | 1.74 | 1.12 | -.27 to 1.24 | | 31 |
| American students | 1.42 | .83 | .10 to 1.52* | -1.24 to .27 | 24 |

b. Work closely

The results of the ANOVA indicated that there were no differences on “work closely” item in propinquity motivator and three romantic relationship groups developed by international students, $F(2, 92) = 2.02, p = .14$. The means and standard deviations are presented in Table 45.

Table 45. Means and standard deviations of “work closely” on propinquity

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|-----|----|
| Same countries of origin | 1.43 | .71 | 40 |
| Different countries of origin | 1.81 | .97 | 31 |
| American students | 1.42 | .88 | 24 |

c. Same class

The ANOVA test indicated that there were no differences on “same class” item in propinquity and three romantic relationship groups developed by international

students, $F(2, 92) = .14, p = .87$. The means and standard deviations are presented in Table 46.

Table 46. Means and standard deviations of “same class” on propinquity

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 1.75 | 1.15 | 40 |
| Different countries of origin | 1.87 | 1.38 | 31 |
| American students | 1.92 | 1.48 | 24 |

d. Same social activity

The ANOVA test indicated that there were significant differences on “same social activity” item in propinquity and three romantic relationship groups developed by international students, $F(2, 92) = .354, p < .05$. The η^2 of .07 indicated a moderately strong relationship between the item “same social activity” and the three romantic relationship groups (see Table 47).

To assess the further differences among groups, post hoc comparisons were conducted using the Dunnett’s C test which does not require equal population variances. Levene’s test had indicated that the variances among the groups differed significantly, $F(2, 92) = 3.89, p < .05$. Based on the results of Dunnett’s C, there was a significant difference in the means between international students with others from different countries of origin and international students with American students group, but no significant differences were seen between international students with same country partners and with American students, and between international students with same country partners and with different country partners. The 95% confidence

intervals for the pairwise differences, as well as the means and standard deviations for the three romantic relationship groups, are reported in Table 48.

Table 47. One-way ANOVA results for “same social activity” on propinquity and three relationship groups

Dependent Variable: Same Social Activity?

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-----------------|-------------------------|----|-------------|---------|------|---------------------|
| Corrected Model | 12.143(a) | 2 | 6.072 | 3.542 | .033 | .072 |
| Intercept | 360.335 | 1 | 360.335 | 210.230 | .000 | .696 |
| country | 12.143 | 2 | 6.072 | 3.542 | .033 | .072 |
| Error | 157.688 | 92 | 1.714 | | | |
| Total | 566.000 | 95 | | | | |
| Corrected Total | 169.832 | 94 | | | | |

(a) R Squared = .072 (Adjusted R Squared = .051)

Table 48. 95% Confidence intervals of pairwise differences in mean changes in “same social activity” on propinquity

| Romantic relationship group | Mean | SD | Same countries of origin | Different countries of origin | N |
|-------------------------------|------|------|--------------------------|-------------------------------|----|
| Same countries of origin | 2.12 | 1.32 | | | 40 |
| Different countries of origin | 2.39 | 1.50 | - 1.10 to .57 | | 31 |
| American students | 1.46 | .98 | - .05 to 1.38 | .10 to 1.76* | 24 |

2. Mere exposure

The results of the one-way ANOVA indicated that there were no significant differences related to the mere exposure motivator in the three romantic relationship groups developed by international students, $F(2, 92) = .36, p = .70$. The means and standard deviations are presented in Table 49.

Table 49. Means and standard deviations of mere exposure

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|-----|----|
| Same countries of origin | 1.93 | .85 | 40 |
| Different countries of origin | 2.04 | .83 | 31 |
| American students | 1.85 | .80 | 24 |

Four items were used to measure the mere exposure in this study: live closely, work closely, same class, and same social activity. Since each single item measures different content of the mere exposure, these items were also examined separately.

a. Live closely

The results of the one-way ANOVA indicated that there were no significant differences related to “live closely” on the mere exposure motive in the three romantic relationship groups developed by international students, $F(2, 92) = .75, p = .47$. The means and standard deviations are presented in Table 50.

Table 50. Means and standard deviations of “live closely” on mere exposure

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 2.25 | 1.46 | 40 |
| Different countries of origin | 1.87 | 1.02 | 31 |
| American students | 2.00 | 1.41 | 24 |

b. Work closely

The results of the one-way ANOVA indicated that there were no significant differences on “work closely” in the mere exposure in the three romantic relationship groups developed by international students, $F(2, 92) = .85, p = .43$. The means and standard deviations are presented in Table 51.

Table 51. Means and standard deviations of “work closely” on mere exposure

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 1.53 | .91 | 40 |
| Different countries of origin | 1.84 | 1.07 | 31 |
| American students | 1.71 | 1.12 | 24 |

c. Same class

The results of the one-way ANOVA indicated that there were no significant differences related to “same class” item on the mere exposure motivator in the three romantic relationship groups developed by international students, $F(2, 92) = 1.01, p = .37$. The means and standard deviations are presented in Table 52.

Table 52. Means and standard deviations of “same class” on mere exposure

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 1.78 | 1.10 | 40 |
| Different countries of origin | 2.13 | 1.37 | 31 |
| American students | 2.17 | 1.26 | 24 |

d. Same social activity

The results of the one-way ANOVA indicated that there were no significant differences on “same social activity” in the mere exposure in the three romantic relationship groups developed by international students, $F(2, 92) = 2.61, p = .08$. The means and standard deviations are presented in Table 53.

Table 53. Means and standard deviations of “same social activity” on mere exposure

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 2.18 | 1.45 | 40 |
| Different countries of origin | 2.32 | 1.40 | 31 |
| American students | 1.54 | .93 | 24 |

3. Social isolation and psychological stress

The results of the one-way ANOVA showed that there were no significant differences on the social isolation and psychological stress among three romantic relationship groups developed by international students, $F(2, 92) = 2.03, p = .14$. The means and standard deviations are presented in Table 54.

Table 54. Means and standard deviations of social isolation and psychological stress

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 2.13 | 1.04 | 40 |
| Different countries of origin | 1.83 | .70 | 31 |
| American students | 1.68 | .97 | 24 |

4. Physical attractiveness

The results of the one-way ANOVA showed that there were no significant differences on the physical attractiveness factor in three romantic relationship groups developed by international students, $F(2, 92) = .20, p = .82$. The means and standard deviations are presented in Table 55.

Table 55. Means and standard deviations of physical attractiveness

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 3.23 | 1.39 | 40 |
| Different countries of origin | 3.36 | 1.14 | 31 |
| American students | 3.42 | 1.10 | 24 |

5. Personal liking

The results of the one-way ANOVA indicated that there were no significant differences on the personal liking among three romantic relationship groups developed by international students, $F(2, 92) = .80, p = .45$. The means and standard deviations are presented in Table 56.

Table 56. Means and standard deviations of personal liking

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|-----|----|
| Same countries of origin | 4.54 | .69 | 40 |
| Different countries of origin | 4.56 | .57 | 31 |
| American students | 4.72 | .32 | 24 |

In summary, the results in this study revealed differences and similarities in terms of six motivators among three romantic relationship groups developed by international students. There is a significant difference among the six motivators. However, the interaction between those six motivators and three relationship groups is not significant. Thus, the results suggested that there are no significant differences in the response to the six motivators between the three groups of relationships. Among those six motivators, the results displayed significant mean differences between most of the levels of motivators except between similarity and physical attractiveness.

There was a significant difference found in the similarity motivator between international students with others from the same countries of origin and international students with American students group, but no significant differences were found between international students with same country partners and with different country partners, and between international students with different country partners and with American partners. This result indicated that international students who initiated romantic relationships with others from the same countries of origin value similarity

as more important motivator for relationship development than international students with American students.

A significant difference was also found in the item “live closely” on propinquity between the romantic relationship developed by international students with others from the same countries of origin and by international students with American students, but no significant differences were seen between international students with same country partners and with different country partners, and between international students with different country partners and with American partners. The result showed that international students who initiated romantic relationships with others from the same countries of origin regard “live closely” as more important condition for relationship development than international students with American students.

Another significant difference was found in the item “same social activity” on propinquity motivator between the romantic relationships developed by international students with others from different countries of origin and by international students with American students group, but no significant differences were found between international students with same country partners and with American students, and between international students with same country partners and with different country partners. The result indicated that international students who initiated romantic relationships with others from the different countries of origin consider “same social activity” on propinquity as more important condition for relationship development than international students with American students.

On the other hand, the result revealed similarities in terms of motivators among the three romantic relationship groups developed by international students. All the three romantic relationship groups value similarly on personal liking and physical attractiveness as the important motivators for relationship development, whereas other motivators such as social isolation and psychological stress, “work closely” and “same class” on propinquity and all the mere exposure items are less important for relationship development.

RQ 3: What is the relationship between the degree of romantic commitment and the three groups of the romantic relationships developed by international students?

To analyze this research question, a one-way analysis of variance (ANOVA) was conducted to evaluate the relationships between the degree of commitment and the three groups of romantic relationships developed by international students. The independent variables were three groups of romantic relationships developed by international students: international students with other students from the same countries of origin, international students with other students from different countries of origin, and international students with American students. The dependent variable was the degree of commitment assessed from the commitment dimension from the Sternberg’s Triangular Love scale, and Commitment and Graduation scale.

1. Commitment (from Sternberg’s Triangular Love Scale)

The results of the one-way ANOVA indicated that there were no significant differences on the degree of commitment among three romantic relationship groups

developed by international students, $F(2, 92) = .06, p = .94$. The means and standard deviations are presented in Table 57.

Table 57. Means and standard deviations of commitment (Sternberg's Triangular Love Scale) among three romantic relationship groups

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|------|----|
| Same countries of origin | 7.45 | 1.31 | 40 |
| Different countries of origin | 7.55 | 1.07 | 31 |
| American students | 7.47 | 1.47 | 24 |

* Sternberg's Triangular Love Scale is measured by a 9-point scale.

2. Commitment and graduation

The result of the ANOVA indicated that that there were no significant differences on the degree of commitment on graduation among three romantic relationship groups developed by international students, $F(2, 92) = .48, p = .62$. The means and standard deviations are presented in Table 58.

Table 58. Means and standard deviations of the degree of commitment and graduation among three romantic relationship groups

| Romantic relationship group | Mean | SD | N |
|-------------------------------|------|-----|----|
| Same countries of origin | 4.27 | .83 | 40 |
| Different countries of origin | 4.35 | .67 | 31 |
| American students | 4.14 | .99 | 24 |

In summary, partner's country or romantic relationship groups, whether their romantic relationship partner are students from the same or different countries of origin, or Americans students, did not have a significant influence on the degree of

romantic commitment. All three groups of romantic relationships indicated significantly greater degree of commitment on the Triangular Love Scale as well as commitment and graduation scale.

CHAPTER 6

CONCLUSION

Summary of Findings and Discussion

The major purposes of the present study were to examine major motivators for international students to develop romantic relationships with other students and to examine the degree of romantic commitment to their relationship. Several general conclusions can be drawn from the current findings.

Romantic relationship motivators

The results of this study indicated in spite of the unique cultural variations associated with each sample, there were not significant differences among all samples. Regardless of countries of origin of their partners, nearly all the international student samples valued personal liking as the most essential motivator for the relationship development. This finding can be explained from the Reinforcement-Affect Model of Attraction (Byrne, 1965). According to the model, positive feelings or experiences associated with people resulted in liking them. An explanation from the study can be this emotional attraction led international students to approach each other and to initiate the romantic relationship.

It should be noted that this result was somewhat similar to the research conducted by Lampe (1982) on interethnic dating among college students from the three ethnic groups: European American, African American, and Latino American. The results of his study indicated personal liking as the major motivation for dating

someone of another ethnic group. That is also commonly accepted reason for (intraethnic) dating in the United States and some other countries.

Additionally, these findings may be viewed as the intensive socialization of the Americanized “romantic ideal”. The contemporary American society has exhibited the “love pattern” of mate selection to an unusually large degree (Rubin, 1974). This romantic ideal is transmitted by an ever-popular and pervasive genre of movies, television serials, magazines, and comic books. Thus, to some degree, this intensive socialization of “romantic ideal” has some impact on the course of dating relationships among international students who have been exposed to both American and their own society.

Similarly, physical attractiveness was also placed great value on the development of the romantic relationship by international student population as the significant motivator. This is similar to the findings from the study conducted by Hatfield and her students (1984) among 1,000 dating couples, 100 newlyweds, and 400 elderly women, asking them most critical things in their relationships. Although those three groups were very different in age and life experiences, they were significantly similar in what they thought was the most important in love relations or marriage. Appearance (having mates who are attractive and take care of their appearance) was listed as one of the important assets.

The results from the current study can be also explained that the positive traits associated with physical attractiveness may differ and vary depending on culture; however, the judgments in favor of “what is beautiful” are fairly consistent. It should

be also noted that physical appearance is the most important factor in the early stages of relationships (Schwartz & Scott 1994). This is because first impressions are often based on whether or not people find a person attractive. In addition, first impressions are often lasting impression.

Similarity had also a great impact on the relationship development among international students. Particularly, similarities in values, attitudes, and interests appear to be central aspects to facilitate building the relationships from the results of the current study. The results can be interpreted that there is a strong relationship between similarity and the relationship development as most of the theories proposed. An explanation for the results why people seem to gravitate to similar others are (Knapp & Vangelisti, 2000): (1) people assume similar characteristics reflect a common view of the world; (2) if people share a lot in common, interaction with them requires less hard work; (3) similar others seem to give people a better chance of being liked. If people are dissimilar, they may ask for justification of beliefs and force to keep track of referents for a host of expressions that can be assumed with similar others easily.

Although similarity was also considered as the important motivator for the relationship development among the all three romantic relationship groups, it was more significantly related to those students who initiated their relationships with others from the same countries of origin. An explanation for this finding is simply because those students with partners from the same countries share more similar aspects including languages, culture backgrounds, ethnic backgrounds etc.

Meanwhile, it should be noted that some students also reported in an open-ended question of the survey that the international students initiated the relationships with their partner because their partners have some qualities or personalities that the students do not possess. This finding of opposite attract can be explained as the notion of complementarity attraction. The basic concept is that people who differ on same attributes or on two different attributes are able to provide satisfactions to each other in ways that would not be possible if the difference did not exist (Hendrick & Hendrick, 1992). Such attributes may range from basic personality dispositions or psychological needs to relatively simple behaviors. However, in this present study, as the theory found out the complementarity effect is not as robust as the similarity, similarity is more significant motivator for international students to develop romantic relationships with others.

As mentioned above, personal liking and physical attractiveness were considered as the significant motivators for international students to develop romantic relationships. These findings may seem to be the results of homogeneous or single cultural relations rather than culturally diverse interactions. This can be explained from the third cultures or Intercultural Microcultures (IMCs) models (Fontaine, 1997). According to Fontaine (1997), "IMCs are set of perceptions about the appropriate strategy for doing a particular task on an international assignment. It is a culture shared among the participants in that task." Since those international students were from various cultures, the students may have developed IMCs to deal effectively with this cultural diversity in order to get things done. The outcome of this IMC strategy

may lead to more monocultural interactions among international student community producing the results that personal liking and physical attractive were as the significant motivators for relationship development.

Furthermore, the explanation for personal liking and physical attractiveness as the significant motivators for relationship development can be differences between decisions to get married and to initiate romantic relationships. Many people probably consider similarity or complementarity aspect when they make decision to get married with others.

The reason for similarity was considered by international students as the less significant motivator than those two motivators, personal liking and physical attractiveness may be interpreted that international students look for something new or different experience because they are living in a foreign or different culture. This is probably the factor that similarity did not appear as the most important factor.

Interestingly, social isolation and psychological stress did not appear to have a significant impact on developing romantic relationship for international students in this study. International students frequently encounter problems in adjusting to their new social environment and suffer from loneliness due to the loosening of social ties with people in their native countries. However, the results from this study appeared that establishing the romantic relationships and easing loneliness or stress from their new/different social environment were not directly associated with one another. An explanation for this finding may be because international students would find friends or develop friendship with others in order to cope with their loneliness or stress due to

explanation for this finding may be because international students would find friends or develop friendship with others in order to cope with their loneliness or stress due to the new/different social environment rather than initiating or seeking romantic relationships. Furthermore, it might be interpreted that as a result of establishment of the relationships, those students may be released from their loneliness or stress due to the emotional support from their partners.

In addition, this result from the present study may be explained by the duration of stay of international students in Hawaii. In the present study, only five out of 95 samples have been in Hawaii for less than five months, four out of 95 samples for less than one year and six out of 95 samples for less than one year and half. The most of the samples have stayed in Hawaii for more than two years. Much of the research about the international students in the U.S. proved that adjustment difficulties lessen with time (Hull, 1978). Based on the so-called U-curve hypothesis, Lysgaard (1955) found that international students who had been in the U.S. for less than six months or more than eighteen months appeared to be well adjusted to the life in the U.S. socially and academically, but for those who had been in the U.S. from between six and eighteen months, they are likely to face some difficulties in adjustment.

According to explanation by Lysgaard, for those students who had been in the U.S. less than six months, they are considered to be in the “honeymoon stage” of adjustment. The students are optimistic and they are likely to see the positive aspects of your new environment or experience. Thus, they may not feel loneliness or stress by staying in the U.S. Meanwhile, those students who had been in the U.S. for more

than two years developed the skills necessary to effectively deal with differences in the host culture and life becomes more predictable and manageable for them. Thus, the students learned how to cope with loneliness or stress through their experiences being in the U.S.

From the study by Lysgaard, since the majority of the samples in this present study have been staying in Hawaii for more than two years, it may be interpreted that most of the samples have stayed long enough to cope with the issues of academic and social adjustment and they may feel less loneliness and stress. Therefore, social isolation and psychological stress did not have a great impact on romantic relationship development by international students in this study.

Propinquity and mere exposure did not seem to have a significant influence as the main motivators for international students to develop the romantic relationships with other students. In looking at each item of these two motivators, however, “live closely” and “same social activity” on mere exposure were found as the moderately significant motivators for the relationship development among international students.

As defined in the previous chapter, mere exposure in this study means simple repeated contact or exposure between two individuals, which influences relationship development. From the findings, some international students in this study had frequency of contact with their partners through living closely (e.g., roommate, living in the same apartment/dorm etc.) or engaging in the same social activity (e.g., same event, same clubs etc.) which increased familiarity of the person and led to development of romantic relationships. As an example of some social activities, there

are varieties of social activities offered regularly for international students by International Student Services at each school as well as by some volunteer organizations or local community. Some of those activities are excursions to the places in Hawaii and others are events or parties often celebrating American or diverse cultures in Hawaii. Those social activities are announced frequently to the students through the international students' mailing list. Many international students participate in the activities in order to release stress from their busy schedule with school and to just have fun. Those activities might be opportunities to get to know other international students and American students, and develop friendship network as well as romantic relationships.

In contrast, "work closely" on both mere exposure and propinquity demonstrated as less significant motivators. This finding can be interpreted because not all international students are working because the primary purpose of being in the U.S. is to obtain education. At the same time, all those international students have limited access to work under the U.S. immigration. Therefore, "work closely" may not be the important condition or motivator for international students to develop romantic relationships.

The explanation for propinquity and mere exposure were not the significant motivators for romantic relationship development by international students may be because with the recent technological advancement, there are more communication channels such as cellular phones, e-mails etc. to connect and interact with other people. These literatures of propinquity and mere exposure were developed in 1960s

where there were not varieties of ways to stay in touch with others. This is probably because those propinquity and mere exposure were not seen as the significant motivators for the relationship development by international students.

Romantic commitment

The results of the current study revealed in spite of the cultural variations associated with each sample, significant commonalities emerged across the samples. Partner's country of origin, whether international students are in romantic relationships with students from the same/different countries of origin or with American students, did not have a significant impact on the degree of romantic commitment. Most of the respondents scored relatively high on the degree of commitment on both the Sternberg's Triangular Love Scale, and Commitment and Graduation Scale and the level of romantic commitment did not vary across the samples.

The findings from this study indicated although those international students may encounter physical separation or long-distance relationships since their duration of stay in the United States is limited, they are willing to continue their relationships and remain committed to each other. Additionally, the results may be explained by the stage of their relationships. Gao (2001) argued cross-cultural differences in commitment are most likely to occur in initial states of a relationship when couples are in the process of negotiating the status of their relationship. In the current study, only eight out of 95 samples identified themselves as being involved in a casual relationship. The rest of the respondents considered their relationships as serious,

going steady or plan to get married. Once couples reach the serious stage of relationship, they have come to some degree of understanding about the nature of their relationship.

Limitations of this Research

There are several limitations of the present study that should be mentioned. The first limitation is concerned with the sample. The international student samples were obtained from only four schools in Hawaii since the time was limited to gather the data. Thus, the respondents in this study did not represent the international students from other schools in Hawaii as well as the international students in mainland.

In addition, the sample size ($N = 95$) was fairly small. Since the targeting samples were very specific, who are single and currently dating or having romantic relationships with other students of opposite sex, the response rate for questionnaires was low in comparison to the amount of variables being studied. With only 95 subjects, the possibility of error greatly increases (Babbie, 1998). Furthermore, because the samples' partners are limited to university or college students, eliminating those students who are in a relationship with non-students, who are in a long distance relationship, the findings may not be able to generalize to all the romantic relationships developed by international students.

Moreover, since the number of distribution of the country of origins of the international students was not equal, the sample may not reflect the entire population of the international students. In fact, the number of international students from East

Asian countries (Japan, Korea, China, Taiwan etc) was much higher than the other countries.

Lastly, because a non-probability method of sampling was used, there is a question of appropriateness in using inferential statistics to analyze the data.

Second, the physical relationships on the question item (Part A: Q6) might not be answered by the participants as the present study intended. The question projected to ask the sexual relationships between couples. In order to avoid low responses because of the violation of privacy felt by the participants, the term “physical” was used in stead of “sexual”. However, since the term “physical” was vague, the participants might not respond to it as the current study intended.

Third, the present study only covered motivators which develop relationships and romantic commitment to the relationships as characteristics of romantic relationships. Several areas of romantic relationship characteristics such as intimacy (sexual relationships), passion, power, love attitudes etc. were not covered in this study.

Fourth, since the study examined the perceived motivators which the respondents needed to think back on the time when they initiated the relationships with their partners, the determinants of motivators to develop the relationships may not be same as the actual first impression or decision what the respondents had.

Additionally, measurement of propinquity and mere exposure used in the present study may not be the appropriate way to examine. Propinquity as an example, some researchers measured actual distance between romantic couples’ door to door to

find out whether propinquity is the motivator for the relationship development. Since the present study only examined the perceived motivators of the respondents, it may not reflect actual ones.

Lastly, in the present study, the countries of origin of the participants and partners were used to categorize the romantic relationships: students with partners from the same/different countries of origin and American students. The group of students with partners from different countries of origin should not be treated as only one group. This is because the respondents who are in the relationship with partner from similar cultural background and different cultural background may not be represented as one group.

Suggestions for Future Research and Conclusion

This study was the first of its kind to attempt to explore some aspects of romantic relationships developed by international students in Hawaii. It provided the major motivators for international students to develop the romantic relationships with other students and the level of romantic commitment to their relationships. This research effort and the findings from the current study have also raised some implications for future research mentioned below.

Considerably, more intensive research with larger samples of romantic relationships of international students (e.g., students studying in mainland) should be conducted. Due to the difficulty in the collection of data, this cross-cultural study employs snowballing samples. The results yielded by this study, therefore suffer from the limitations in their inferential power. In the future research, in-depth qualitative

research examining international student couples may be useful to further understanding of the relationships developed by international students.

Another future research might consider narrowing the focus of the study such as focusing on one aspect of the relationships (e.g., similarity motive or degree of commitment only etc.) or one group of the romantic relationships (e.g., students with others from the same countries of origin only etc.) rather than several at one time. Another idea for future research would be to include non-student population of international student partners in order to test the generalizability of the findings in this study. Another interesting study would be to compare one aspect of the romantic relationships developed by international student couples and American student couples. Another future research would be to find some correlations between degree of romantic commitment and those motivational profiles within the romantic relationships among the international student samples. This research would be able to predict the romantic relationship outcomes from these motivational profiles. The possibilities for research in this area are endless.

In closing, although research on intercultural relationships is not simple because the issues of cross-cultural research are raised involving at least two and sometimes three with the researcher cultures; however, the results of the current study have extended the understanding of the romantic relationships developed by particular groups, international students. Hopefully, it will help contribute to the building up of the future research on comparative and intercultural study of dating, courtship, and marriage. Additionally, it will also lead to further understanding of international

sojourners and facilitate the future research on cross-cultural counseling/psychology and intercultural communication literatures of international students, the functions and role of the International Students Services offices in the U.S. colleges and universities, and variety issues related to international students.

APPENDIX A: CONSENT FORM

Dear International Students,

The following questionnaire asks about your romantic relationship with other student. It should only take about **10 to 15 minutes** to answer.

I strongly encourage you to respond since your participation may lead to further understanding of international sojourners and may facilitate the future research on variety of the international student issues, counseling literature of international students as well as the functions and roles of the International Student Services offices in the U.S. colleges and universities.

Participation in this study is completely **voluntary**. Your responses will remain **confidential** and will be used for academic research purposes only. No names will be associated with completed questionnaires.

Thank you for your time,

Aki Minami, Master of Arts in Communication candidate
University of Hawaii at Manoa
akiminam@hawaii.edu, (808) 528-0241

Please read the following and sign below:

"I certify that I have read and that I understand the foregoing, that I have been given satisfactory answers to my inquiries concerning project procedures and other matters and that I have been advised that I am free to withdraw my consent and to discontinue participation in the project or activity at any time without prejudice.

I herewith give my consent to participate in the project with the understanding that such consent does not waive my legal rights, nor does it release the principle investigator or the institution or any employee or agent thereof from liability for negligence".

Signature of Individual Participant

Date _____

(If you cannot obtain satisfactory answers to your questions, have comments or complaints about your treatment in this study, contact: Committee on Human Studies, 2540 Maile Way, Honolulu, Hawaii 96822. Phone: (808) 956-5007.)

APPENDIX B: QUESTIONNAIRE

ROMANTIC RELATIONSHIPS AMONG INTERNATIONAL STUDENTS

QUESTIONNAIRE

This questionnaire asks about your romantic experiences in Hawaii. Your responses will be used for academic research purposes only. Your privacy is guaranteed. Thank you for your time.

Part A: Romantic Relationship Experience

Please fill in the answers or check the response that most accurately describes you.

1. Are you currently in a romantic relationship?

Yes

No

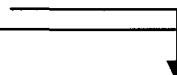
2. Is your partner a foreign or American student (born and raised in the U.S.)?

American Student

International Student 

Q2A. If international student, is your partner from the same country of origin as you or different country of origin from you?

Same

Different 

Q2B. If different, where is your partner's country of origin?

Please name your partner's country of origin

3. How long have you been in this relationship?

_____ years and _____ months

4. How many hours per week do you see your partner?

_____ hours.

5. Are you living with your partner?

Yes

No

6. Do you have a physical relationship with your partner?

Yes

No

7. How do you assess your current relationship with your partner

(boyfriend/girlfriend)?

Casual dating Serious Dating Going steady Plan to get
married

Other (please be specific).

→ Continue to Part B

Part B: Romantic Relationship Motivators

Think back to the time when you first decided to initiate the romantic relationship with your partner. Using the scale given below, please indicate how much you **agree** or **disagree** with each statement:

| | | | | |
|--------------------------|--------------------------|-----------------------------------|-----------------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |

Please circle the best answer

- | | Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |
|---|-------------------|-------------------|----------------------------|----------------|----------------|
| 1. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is the same or similar age as me. | 1 | 2 | 3 | 4 | 5 |
| 2. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar ethnic group as me. | 1 | 2 | 3 | 4 | 5 |
| 3. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar social class. | 1 | 2 | 3 | 4 | 5 |
| 4. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar cultural background. | 1 | 2 | 3 | 4 | 5 |
| 5. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she speaks the same language as me. | 1 | 2 | 3 | 4 | 5 |
| 6. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her religious affiliation is the same as my religion. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|--|---|---|---|---|---|
| 7. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is studying the same level of education as me. | 1 | 2 | 3 | 4 | 5 |
| 8. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because what he or she thinks is right or wrong is the same or similar to mine. | 1 | 2 | 3 | 4 | 5 |
| 9. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because what he or she thinks is important or unimportant is the same or similar to mine. | 1 | 2 | 3 | 4 | 5 |
| 10. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her political attitude is the same or similar to mine. | 1 | 2 | 3 | 4 | 5 |
| 11. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar attitudes toward dating/love. | 1 | 2 | 3 | 4 | 5 |
| 12. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her attitudes toward his or her family is the same or similar to mine. | 1 | 2 | 3 | 4 | 5 |
| 13. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her attitudes toward his or her friends is the same or similar to mine. | 1 | 2 | 3 | 4 | 5 |
| 14. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar interests as mine. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|--|---|---|---|---|---|
| 15. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar hobbies as mine. | 1 | 2 | 3 | 4 | 5 |
| 16. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar food preferences as me. | 1 | 2 | 3 | 4 | 5 |
| 17. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her appearance is similar to me. | 1 | 2 | 3 | 4 | 5 |
| 18. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt he or she was in “the same boat” (e.g. having study groups for exams, presentation, group project, academic or English difficulty). | 1 | 2 | 3 | 4 | 5 |
| 19. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we lived close to each other (e.g., roommate, living in the same apartment, same floor, same doom etc.). | 1 | 2 | 3 | 4 | 5 |
| 20. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we worked near each other (e.g., co-worker, working in the same building, same floor. | 1 | 2 | 3 | 4 | 5 |
| 21. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we enrolled in the same class (or classes). | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|---|---|---|---|---|---|
| 22. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we belonged to or joined the same social activity or organization (e.g., same club, same organization, same church etc). | 1 | 2 | 3 | 4 | 5 |
| 23. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we lived close to each other (e.g., roommate, live in the same apartment or dorm, or same floor etc). | 1 | 2 | 3 | 4 | 5 |
| 24. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we worked near each other (e.g., co-worker, work in the same place, same building, same floor etc). | 1 | 2 | 3 | 4 | 5 |
| 25. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we enrolled in the same class or classes. | 1 | 2 | 3 | 4 | 5 |
| 26. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I can frequently interact/communicate/meet with him or her because we belonged to or joined the same social activity or organization (e.g., same club, organization, volunteer, or church etc). | 1 | 2 | 3 | 4 | 5 |
| 27. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt lonely. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|---|---|---|---|---|---|
| 28. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I did not have my social support network such as my family and friends. | 1 | 2 | 3 | 4 | 5 |
| 29. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt stress due to change of the environment | 1 | 2 | 3 | 4 | 5 |
| 30. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt uncomfortable to adjust to a new life. | 1 | 2 | 3 | 4 | 5 |
| 31. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is handsome/pretty. | 1 | 2 | 3 | 4 | 5 |
| 32. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I had a positive feeling for him or her. | 1 | 2 | 3 | 4 | 5 |
| 33. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I thought he or she is a nice person. | 1 | 2 | 3 | 4 | 5 |
| 34. I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I enjoyed spending time with him or her. | 1 | 2 | 3 | 4 | 5 |

35. Other reasons?

Part C: Romantic Relationship Commitment and Graduation

Think about your commitment to the relationship with your partner after your or your partner's graduation from school. To what extent are you committed to your relationship? Using the scale given below, please indicate how much you **agree** or **disagree** with each statement:

| | | | | |
|--------------------------|--------------------------|-----------------------------------|-----------------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |

Please circle the best answer

| | Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |
|--|-------------------|-------------------|----------------------------|----------------|----------------|
| 1. I would like to continue the relationship with my partner even I will physically separate from him or her after graduation from school. | 1 | 2 | 3 | 4 | 5 |
| 2. I am sure I will maintain my relationship after graduation from school regardless of physical separation from each other. | 1 | 2 | 3 | 4 | 5 |
| 3. I will do anything to continue the relationship with my partner after graduation from school. | 1 | 2 | 3 | 4 | 5 |
| 4. I want to maintain the relationship with my partner after graduation from school if possible. | 1 | 2 | 3 | 4 | 5 |

Part D: STERNBERG'S TRIANGULAR LOVE SCALE

Please think of your boyfriend/girlfriend or the person whom you are in love with or you have romantic relationship with *right now*.

To complete the following scale, fill in the blank spaces with the name of your boyfriend/girlfriend or one person whom you are in love with or you are having romantic relationship. Then rate your agreement with each of the items by using a nine-point scale in which 1 = "not at all," 5 = "moderately," and 9 = "extremely." Use points in between to indicate these values.

Possible answers range from:

| | | | | | | | | |
|------------|---|---|------------|---|---|-----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Not at all | | | Moderately | | | Extremely | | |

Please circle the best answer

- | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|
| 1. I am actively supportive of _____'s well-being. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2. I have a warm relationship with _____. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3. I am able to count on _____ in times of need. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4. _____ is able to count on me in times of need. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 5. I am willing to share myself and my possessions with _____. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 6. I receive considerable emotional support from _____. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 7. I give considerable emotional support to _____. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 8. I communicate well with _____. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9. I value _____ greatly in my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10. I feel close to _____. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

27. I cannot imagine life without _____.
1 2 3 4 5 6 7 8 9
28. My relationship with _____ is passionate.
1 2 3 4 5 6 7 8 9
29. When I see romantic movies and read romantic books I think of _____.
1 2 3 4 5 6 7 8 9
30. I fantasize about _____.
1 2 3 4 5 6 7 8 9
31. I know that I care about _____.
1 2 3 4 5 6 7 8 9
32. I am committed to maintaining my relationship with _____.
1 2 3 4 5 6 7 8 9
33. Because of my commitment to _____, I would not let other people come between us.
1 2 3 4 5 6 7 8 9
34. I have confidence in the stability of my relationship with _____.
1 2 3 4 5 6 7 8 9
35. I could not let anything get in the way of my commitment to _____.
1 2 3 4 5 6 7 8 9
36. I expect my love for _____ to last for the rest of my life.
1 2 3 4 5 6 7 8 9
37. I will always feel a strong responsibility for _____.
1 2 3 4 5 6 7 8 9
38. I view my commitment to _____ as a solid one.
1 2 3 4 5 6 7 8 9
39. I cannot imagine ending my relationship with _____.
1 2 3 4 5 6 7 8 9
40. I am certain of my love for _____.
1 2 3 4 5 6 7 8 9
41. I view my relationship with _____ as permanent.
1 2 3 4 5 6 7 8 9
42. I view my relationship with _____ as a good decision.
1 2 3 4 5 6 7 8 9

43. I feel a sense of responsibility toward _____ 1 2 3 4 5 6 7 8 9
44. I plan to continue my relationship with _____ 1 2 3 4 5 6 7 8 9
45. Even when _____ is hard to deal with, I remain committed to our relationship. 1 2 3 4 5 6 7 8 9

Part E: General Information

Please fill in the answers or check the response that most accurately describes you.

1. Sex
 - male
 - female
2. Age: _____ years old
3. Name of the school you are attending: _____
4. Country of origin (country where you are born): _____
5. Name of the country where you grew up and how long?

6. Nationality: _____
7. Citizenship: _____
8. What is your ethnic background? (Chinese, Caucasian, Japanese, Korean, Indian etc)

9. Type of visa you are holding currently (if you have one):
 - None F-1 J-1
 - Other (please specify) _____
10. How long have you been studying in Hawaii? _____
11. What is your level of education?
 - Undergraduate: Freshman Sophomore Junior Senior
 - Graduate: Master PhD
12. When are planning to graduate?
 - Spring 2004 Summer 2004 Fall 2004 in 2 years in 3 years
 - in 4 years more than 5 years
13. What is your plan after graduation? _____

THANK YOU VERY MUCH FOR YOUR PARTICIPATION!

| APPENDIX C: CODEBOOK | | | |
|-----------------------------|------------|---|--|
| VARIABLE NAME | QUESTION # | DESCRIPTION | CODES |
| ID | | Respondent ID number | |
| RELATIONSHIP | PART A: 1 | Are you currently in a romantic relationship? | 1- No 2- Yes |
| PARTNER | PART A: 2 | Is your partner a foreign or American student? | 1- International student 2- American student |
| RELATIONSHIP_GRP | PART A: 2A | If international, is your partner from the same county of origin or different country of origin? | 1- Same 2- Different 3- American |
| DIFFERENT | PART A: 2B | If different, where is your partner's country of origin? | Enter country |
| YR_RELATIONSHIP | PART A: 3 | How long have you been in this relationship? | 1- less than 1 month 2- less than 6 months . . 11- less than 5 years 12- more than 5 years |
| HOURS | PART A: 4 | How many hours per week do you see your partner? | 1- less than 10 hours 2- less than 20 hours . . 5- less than 50 hours 6- more than 50 hours |
| COHABITATION | PART A: 5 | Are you living with your partner? | 1- No 2- Yes |
| PHYSICAL | PART A: 6 | Do you have a physical relationship with your partner? | 1- No 2- Yes |
| STATUS | PART A: 7 | How do you assess your current relationship with your partner? | 1- Casual dating 2- Serious dating 3- Going steady 4- Plan to get married 5- Others |
| SAME_AGE | PART B: 1 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is the same or similar age as me. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_ETHNIC | PART B: 2 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar ethnic group as me. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_SOC | PART B: 3 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar social class. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_CUL | PART B: 4 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is from the same or similar cultural background | 1 - Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |

| | | | |
|------------|---------------|---|---|
| SAME_LANG | PART B: 5 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she speaks the same language as me. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_REL | PART B: 6 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her religious affiliation is the same as my religion. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_EDU | PART B: 7 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is studying the same level of education as me. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_RIGHT | PART B: 8 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because what he or she thinks is right or wrong is the same or similar to mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_IMP | PART B: 9 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because what he or she thinks is important or unimportant is the same or similar to mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_POL | PART B: 10 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her political attitude is the same or similar to mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_DATE | PART B: 11 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar attitudes toward dating/love. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_FAM | PART B: 12 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her attitudes toward his or her family is the same or similar to mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_FRI | PART B: 13 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her attitudes toward his or her friends is the same or similar to mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_INT | PART B: 14 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar interests as mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_HOB | PART B: 15 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar hobbies as mine. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |

| | | | |
|------------|---------------|--|---|
| SAME_FOOD | PART B: 16 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she has the same or similar food preferences as me. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_APP | PART B: 17 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because his or her appearance is similar to me. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SAME_BOAT | PART B: 18 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt he or she was in "the same boat" (e.g. having study groups for exams, presentation, group project, academic or English difficulty). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| PROP_LIVE | PART B: 19 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we lived close to each other (e.g., roommate, living in the same apartment, same floor, same doom etc.). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| PROP_WORK | PART B: 20 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we worked near each other (e.g., co-worker, working in the same building, same floor). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| PROP_CLASS | PART B: 21 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we enrolled in the same class (or classes). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| PROP_ACT | PART B: 22 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because we belonged to or joined the same social activity or organization (e.g., same club, same organization, same church etc). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| FRE_LIVE | PART B: 23 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we lived close to each other (e.g., roommate, live in the same apartment or dorm, or same floor etc). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| FRE_WORK | PART B: 24 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we worked near each other (e.g., co-worker, work in the same place, same building, same floor etc). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| FRE_CLASS | PART B: 25 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I could frequently interact/communicate/meet with him or her because we enrolled in the same class or classes. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |

| | | | |
|------------|---------------|---|---|
| FRE_ACT | PART B: 26 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I can frequently interact/communicate/meet with him or her because we belonged to or joined the same social activity or organization (e.g., same club, organization, volunteer, or church etc). | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| LONELY | PART B: 27 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt lonely. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| SOC_SUP | PART B: 28 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I did not have my social support network such as my family and friends. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| STRESS | PART B: 29 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt stress due to change of the environment | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| ADJUSTMENT | PART B: 30 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I felt uncomfortable to adjust to a new life. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| APPERANCE | PART B: 31 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because he or she is handsome/pretty. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| FEELING | PART B: 32 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I had a positive feeling for him or her. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| NICE | PART B: 33 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I thought he or she is a nice person. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| ENJOY | PART B: 34 | I decided to initiate a relationship with my partner (boyfriend/girlfriend) because I enjoyed spending time with him or her. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| OTHERS | PART B: 35 | Other reasons? | Enter reason |
| LIKE_CONT | PART C: 1 | I would like to continue the relationship with my partner even I will physically separate from him or her after graduation from school. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |

| | | | |
|------------|--------------|---|---|
| SURE_CONT | PART C: 2 | I am sure I will maintain my relationship after graduation from school regardless of physical separation from each other. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| DO_CONT | PART C: 3 | I will do anything to continue the relationship with my partner after graduation from school. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| WANT_CONT | PART C: 4 | I want to maintain the relationship with my partner after graduation from school if possible. | 1- Strongly Disagree 2- Somewhat Disagree 3- Neither Agree nor Disagree 4- Somewhat Agree 5- Strongly Agree |
| WELL_BEING | PART D: 1 | I am actively supportive of _____'s well-being. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| WARM_REL | PART D: 2 | I have a warm relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| PART_COUNT | PART D: 3 | I am able to count on _____ in times of need. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| YOU_COUNT | PART D: 4 | _____ is able to count on me in times of need. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|-----------|---------------|---|--|
| POSESSION | PART D: 5 | I am willing to share myself and my possessions with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| REC_SUP | PART D: 6 | I receive considerable emotional support from _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| GIVE_SUP | PART D: 7 | I give considerable emotional support to _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| COMM | PART D: 8 | I communicate well with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| VALUE | PART D: 9 | I value _____ greatly in my life. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| CLOSE | PART D: 10 | I feel close to _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|-------------|---------------|--|--|
| COMF_REL | PART D: 11 | I have a comfortable relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| UND_PART | PART D: 12 | I feel that I really understand _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| UND_YOU | PART D: 13 | I feel that _____ really understands me. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| TRUST | PART D: 14 | I feel that I can really trust _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| INFORMATION | PART D: 15 | I share deeply personal information about myself with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| EXCITEMENT | PART D: 16 | Just seeing _____ excites me. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|------------|---------------|---|--|
| THINK | PART D: 17 | I find myself thinking about _____ frequently during the day. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| ROMANTIC | PART D: 18 | My relationship with _____ is very romantic. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| ATTRACTIVE | PART D: 19 | I find _____ to be very personally attractive. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| IDEALIZE | PART D: 20 | I idealize _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| HAPPINESS | PART D: 21 | I cannot imagine another person making me as happy as _____ does. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| ANYONE | PART D: 22 | I would rather be with _____ than with anyone else. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|-----------|---------------|--|--|
| IMPORTANT | PART D: 23 | There is nothing more important to me than my relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| LIKE_PHY | PART D: 24 | I especially like physical contact with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| MAGICAL | PART D: 25 | There is something almost "magical" about my relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| ADORE | PART D: 26 | I adore _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| IMAGINE | PART D: 27 | I cannot imagine life without _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| PASSION | PART D: 28 | My relationship with _____ is passionate. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|------------|---------------|--|--|
| MOVIE_BOOK | PART D: 29 | When I see romantic movies and read romantic books I think of _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| FANTASY | PART D: 30 | I fantasize about _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| CARING | PART D: 31 | I know that I care about _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| COM_PART | PART D: 32 | I am committed to maintaining my relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| NO_OTHER | PART D: 33 | Because of my commitment to _____, I would not let other people come between us. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| CONFIDENCE | PART D: 34 | I have confidence in the stability of my relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|-------------|---------------|--|--|
| ANYTHING | PART D: 35 | I could not let anything get in the way of my commitment to _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| LOVE_LAST | PART D: 36 | I expect my love for _____ to last for the rest of my life. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| RESPONSIBLE | PART D: 37 | I will always feel a strong responsibility for _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| SOLID | PART D: 38 | I view my commitment to _____ as a solid one. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| ENDING | PART D: 39 | I cannot imagine ending my relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| LOVE_PART | PART D: 40 | I am certain of my love for _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |

| | | | |
|-------------|---------------|---|--|
| PERMANENT | PART D: 41 | I view my relationship with _____ as permanent | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| DECISION | PART D: 42 | I view my relationship with _____ as a good decision. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| SENSE_RES | PART D: 43 | I feel a sense of responsibility toward _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| PLAN_CONT | PART D: 44 | I plan to continue my relationship with _____. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| HARD | PART D: 45 | Even when _____ is hard to deal with, I remain committed to our relationship. | 1- Not at all 2 3 4 5- Moderately 6 7 8 9- Extremely |
| SEX | PART E: 1 | Respondents' sex | 1- Male 2- Female |
| AGE | PART E: 2 | Respondents' age | Enter age |
| SCHOOL | PART E: 3 | Name of the school you are attending | Enter school |
| B.COUNTRY | PART E: 4 | Country of origin (country where you are born) | Enter country |
| R.COUNTRY | PART E: 5 | Name of the country where you grew up and how long? | Enter number of years |
| NUM_YEAR | PART E: 6 | Nationality | Enter country |
| NATIONALITY | PART E: 7 | Citizenship | Enter country |

| | | | |
|------------|---------------|--|---|
| ETHNICITY | PART E: 8 | What is your ethnic background? | 1- Asian 2- Hispanic 3- Caucasian 4- Latin |
| VISA | PART E: 9 | Type of visa you are holding currently | 1- F-1 2- J-1 |
| YEAR_HI | PART E: 10 | How long have you been studying in Hawaii? | Enter number of years |
| LEVEL | PART E: 11 | What is your level of education? | 1- Freshman 2- Sophomore 3- Junior 4- Senior 5- Master 6- PhD |
| GRADUATION | PART E: 12 | When are planning to graduate? | 1- Spring 2004 2- Summer 2004 3- Fall 2004 4- In 2 years 5- In 3 years 6- In 4 years 7- More than 4 years |
| PLAN | PART E: 13 | What is your plan after graduation? | 1- Undecided 2- Working in the US 3- Working in home country 4- Further study 5- Getting married 6- Going home |

| VARIABLE NAME | DESCRIPTION | EQUATION |
|---------------|--|---|
| SIMILARITY | Average score of similarity | $(\text{same_age} + \text{same_ethnic} + \text{same_soc} + \text{same_cul} + \text{same_lang} + \text{same_rel} + \text{same_edu} + \text{same_right} + \text{same_imp} + \text{same_pol} + \text{same_date} + \text{same_fam} + \text{same_fri} + \text{same_int} + \text{same_hob} + \text{same_food} + \text{same_app} + \text{same_boat}) / 18$ |
| PROPINQUITY | Average score of propinquity | $(\text{prop_live} + \text{prop_work} + \text{prop_class} + \text{prop_act}) / 4$ |
| EXPOSURE | Average score of mere exposure | $(\text{fre_live} + \text{fre_work} + \text{fre_class} + \text{fre_act}) / 4$ |
| LONELINESS | Average score of social isolation and psychological stress | $(\text{lonely} + \text{soc_sup} + \text{stress} + \text{adjustment}) / 3$ |
| ATTRACTION | Average score of physical attractiveness | $(\text{appearance}) / 1$ |
| LIKING | Average score of personal liking | $(\text{feeling} + \text{nice} + \text{enjoy}) / 3$ |
| COMMIT_GRAD | Average score of commitment after graduation | $(\text{like_cont} + \text{sure_cont} + \text{do_cont} + \text{want_cont}) / 4$ |
| INTIMACY | Average score of intimacy | $(\text{well_being} + \text{warm_rel} + \text{part_count} + \text{you_count} + \text{possession} + \text{rec_sup} + \text{give_sup} + \text{comm.} + \text{value} + \text{close} + \text{comf_rel} + \text{und_part} + \text{und_you} + \text{trust} + \text{information}) / 15$ |
| PASSION | Average score of passion | $(\text{excitement} + \text{think} + \text{romantic} + \text{attractive} + \text{idealize} + \text{happiness} + \text{anyone} + \text{important} + \text{like_phy} + \text{magical} + \text{adore} + \text{imagine} + \text{passion} + \text{movie_book} + \text{fantasy}) / 15$ |
| COMMIT_LOVE | Average score of commitment | $(\text{caring} + \text{com_part} + \text{no_other} + \text{confidence} + \text{anything} + \text{love_last} + \text{responsible} + \text{solid} + \text{ending} + \text{love_part} + \text{permanent} + \text{decision} + \text{sense_res} + \text{plan_cont} + \text{hard}) / 15$ |

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