

SELF-DISCLOSURE IN AMERICAN FRIENDSHIPS: LINKS WITH  
COLLECTIVISM AND ADULT ATTACHMENT STYLES

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Master of Arts

In

Psychology: Social Psychology

by

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San Francisco, California

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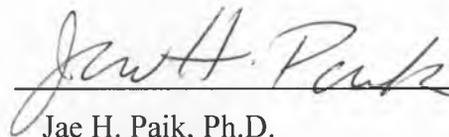
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COLLECTIVISM AND ADULT ATTACHMENT STYLES

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2016

Previous research that examined how collectivism is related to attachment styles and self-disclosure to close others were limited in that in many of the studies did not directly assess collectivism in their participants. The present two studies aimed to address this limitation by assessing collectivism in American participants and examining whether collectivism predicted greater self-disclosure to close friends. In both studies, individuals who endorsed greater collectivism reported engaging in more in-depth self-disclosure to their close friends. This relationship was mediated by avoidant attachment styles. Collectivistic individuals experienced less avoidant attachment to their close friends, which then predicted the depth of self-disclosure to their close friends. These results provide greater understanding of how collectivistic individuals engage in relationship enhancing behaviors, such as self-disclosure.

I certify that the abstract is a correct representation of the content of this thesis

  
Chair, Thesis Committee

August 12, 2016  
Date

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## TABLE OF CONTENTS

List of Table.....	viii
List of Figures.....	ix
List of Appendices .....	x
Introduction.....	1
Collectivism and Self-Disclosure .....	2
Adult Attachment Styles .....	8
Collectivism and Adult Attachment Styles .....	10
Limitations of Previous Research on Collectivism and Adult Attachment Styles .....	12
Adult Attachment Styles and Self-Disclosure .....	16
Hypotheses and Overview of Present Studies .....	17
Study 1 Method.....	20
Participants.....	20
Measures .....	20
Results.....	23
Descriptive and Correlational Analyses.....	23
Collectivism, Self-Disclosure, and Attachment Styles.....	24
Additional Analyses.....	24
Mediation Effect of Attachment Styles between Collectivism and Depth of Self-Disclosure .....	25

## TABLE OF CONTENTS CONTINUED

Discussion.....	27
Study 2 Method.....	30
Participants.....	30
Measures .....	30
Procedure .....	31
Results.....	31
Descriptive and Correlational Analyses.....	32
Collectivism, Self-Disclosure, and Attachment Styles.....	32
Additional Analyses.....	32
Mediation Effect of Avoidant Attachment Style between Collectivism and Depth of Self-Disclosure .....	34
Discussion.....	35
General Discussion .....	36
Reference .....	42
Appendices.....	67

## LIST OF TABLES

Table	Page
1. Means, Standard Deviations, and Range of Scores for All Variables.....	23
2. Correlation Coefficients for All Variables .....	24
3. Correlation Coefficients, Means, Standard Deviations, Score Range for All Variables.....	33

## LIST OF FIGURES

Figures	Page
1. Attachment Styles as Mediator of Collectivism and Self-Disclosure.....	27
2. Attachment Styles as Mediator of Collectivism and Self-Disclosure.....	35

LIST OF APPENDICES

Appendix	Page
A. Consent Form.....	67
B. Demographic Form .....	69

Individuals enjoy a wide variety of relationships in their lives, including friendships. Friendships are distinct from other types of close relationships such as family or marital relationships, in that individuals are more likely to initiate and finish their friendships at discretion (Wood, 2007). Because friendships are relatively more susceptible to changes or termination of the relationship (Patterson, 2007), they require effort to maintain the friendships. Engaging in self-disclosure is an important way to develop and maintain friendships (Matsushima & Shiomi, 2002; Samter, 2003; Schwartz, Galliher, & Rodriguez, 2011). In the present two studies, I examined two predictors of self-disclosure toward close friends, collectivism and attachment styles.

Researchers have proposed that collectivistic individuals would engage in greater self-disclosure toward a close friend because individuals who endorse collectivistic values enjoy a more intimate and close relationship with their close friends (Gudykunst, Yoon, & Nishida, 1987; Schwartz, 2009). As I will review below, empirical support for this theory has been mixed in that some found support for this theory while other studies have not. These mixed results may have been obtained because in many of the studies, researchers did not assess individualism-collectivism and instead examined country or ethnic differences and then attributed the found differences to individualism-collectivism. This is problematic because different ethnic groups and countries may differ in self-disclosure for other reasons than individualism-collectivism (Matsumoto & Yoo, 2006). The first goal of the present studies is to address this limitation by assessing collectivism

(in U.S. participants) and examining if collectivism is indeed linked with greater self-disclosure to close friends. Consistent with past theories, I propose that collectivistic individuals would engage in more self-disclosure to their close friends. Part of the reason why this would be is because they would be closer and be more trustful of their close friends than individuals who were less collectivistic. I therefore examined whether secure attachment styles (i.e. less anxious and avoidant) toward close friends would mediate the relationship between collectivism and self-disclosure. In the sections below, I will review the past studies that have examined these three topics-collectivism, self-disclosure and attachment styles-and discuss its limitations.

### **Collectivism and Self-Disclosure**

Collectivistic individuals place value on interdependence and identify themselves through the relationships developed in their social circles (Markus & Kitayama, 1991). Triandis and his colleagues (Triandis et al., 1988) found that compared to individualistic individuals, collectivistic individuals were more concerned about opinions and approvals of their in-groups and valued greater harmony and cooperation with them. Also, they had fewer friends but deeper and lifelong friendships with many obligations in comparison with individualistic individuals. As a result, collectivistic individuals were encouraged and motivated to engage in relationship enhancing behaviors including self-disclosure toward their in-group members (Cross, Bacon, & Morris, 2000; Gore, Cross, & Morris, 2006; Morry, 2005; Wheeler, Reis, & Bond, 1989).

Self-disclosure refers to individuals revealing information about themselves to others, which in turn makes them more approachable to others (Cozby, 1973; Jourard, 1964). This shared information can include one's thoughts, goals, feelings, personal experiences such as success or failure, fears, and likes or dislikes. Researchers perceive self-disclosure as the hallmark of friendship development (Altman & Taylor, 1973; Schwartz, 2009) and as an important aspect of communication in most close relationships (Altman & Taylor, 1973). Self-disclosure appears to vary depending on one's personality, cultural values, and relationship intimacy with the person at the receiving end of self-disclosure (Derlega, Metts, Petronio, & Margulis, 1993). In general, relationship develops and matures as individuals share information about themselves to one another (Schwartz, 2009) and levels of self-disclosure increase as relationships develop (Altman & Taylor, 1973; Reis & Shaver, 1988). Altman and Taylor (1973; Reis & Shaver, 1988) theorized this phenomenon as Social Penetration perspective – the development of relationship induced by communication shifting from superficial conversation to more intimate discourses, which in turn leads to increase in liking and intimacy in close relationships (Altman & Taylor, 1973; Collins & Miller, 1994; Laurenceau, Barrett, & Pietromonaco, 1998). This theory postulates that self-disclosure engaged toward friends would be more personal and greater in depth compared to self-disclosure toward less close others. Self-disclosure is central to building trust and intimacy (Parker & Gottman, 1989; Sullivan, 1953).

Although many studies have examined the relationship between collectivism and self-disclosure to close others including friends, the results of these studies are inconsistent. In many of the studies on cross-cultural differences in self-disclosure, researchers have focused on how self-disclosure is related to individualism and collectivism by comparing East Asians (e.g., Japanese, Koreans, Chinese) and Westerners (e.g., Americans, Europeans). In these studies, East Asians are considered to be collectivistic whereas Westerners are considered to be individualistic based on previous classification from Hofstede (1980). There are studies that found that Chinese, who are East Asians and thus considered to be collectivistic, self-disclose more than do Americans (Wheeler et al., 1989). In contrast, other studies found that Americans self-disclosed more than Japanese regardless of relationship types (Kito, 2005; Schug, Yuki, & Maddux, 2010). Others argued that the type of self-disclosures matter in that Americans (presumably individualists) self-disclosed more than Japanese in the *amount* of self-disclosure, whereas Non-Westerners (presumably collectivists) engaged in greater *depth* of self-disclosure than Westerners (Barnlund, 1975; Wheelless, Erickson, & Behrens, 1986; Yoo, Kim, & Moon, 2012).

One reasons for these inconsistent findings may be the lack of empirical assessments of individual's endorsement of individualism-collectivism in these studies. Instead of assessing levels of individualism and collectivism in their participants and linking it with self-disclosure, many of the studies have instead used participants' ethnicity, race, or nationality as proxies of participants' individualism and collectivism

and then used individualism-collectivism to explain differences found between different ethnicities, races, or nationalities (Barry, 2003; Chen, 1995; Chen & Nakazawa, 2012; Consedine, Sabag-Cohen, & Krivoshekova, 2007; French, Bae, Pidada, & Lee, 2006; Goodwin & Lee, 1994; Gudykunst, Gao, Schmidt, Nishida, Bond, Leung, Wang, & Barraclough, 1992; Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim, & Heyman, 1996; Gudykunst & Nishida, 1986; Gudykunst et al., 1987; Kito, 2005; McHugh, 2002; Molina & Franco, 1986; Plog, 1965; Schug et al., 2010; Seki, Matsumoto, & Imahori, 2002; Shelton, Trail, West, & Bergsieker, 2010; Ting-Toomey, 1991; Wheeler et al., 1989; Wheelless et al., 1986; Yoo et al., 2012; Yum & Hara, 2005). For example, Bae and colleagues (Bae, 2003; French et al., 2006) explained that the reason why Koreans engaged in more intimate disclosures with their friends compared to Americans in a diary study and on the Rochester Interaction Inventory measure (Wheeler et al., 1989) because Koreans are collectivistic, and thus view friendships to be very intimate. In a comparison of Chinese and American students, Wheeler and colleagues argued that the reason why the Chinese students reported significantly higher levels of self-disclosures in four types of friendships (e.g., same-sex, opposite-sex, mixed-sex friendships, and group interactions), than American students was because the Chinese, who are collectivists, value harmonious in-group relationships that can be developed by intimate self-disclosure (Wheeler et al., 1989). These studies suggest that higher collectivism is associated with greater amount of self-disclosure (Gudykunst et al., 1987). However, in both of these

studies, levels of collectivism in the participants was not assessed and only assumed based on previous classification by Hofstede.

Assuming that East Asians are collectivistic based on Hofstede's (1980) Individualism-collectivism index is problematic because the results for East Asians do not always yield consistent results. Participants who are from countries that are assumed to be collectivistic have shown different patterns of self-disclosure. Koreans (presumably collectivistic based on Hofstede's classification) exhibited self-disclosure more than Americans, whereas Indonesians (presumably collectivistic) showed similar levels of self-disclosure as the Americans (presumably individualistic) (French et al., 2006). Self-disclosure was higher toward in-group relationship members than out-group relationship members for participants in Hong Kong, but not in Japan (both countries were presumably collectivistic) (Gudykunst et al., 1992). In addition, not every individualistic country on the Hofstede's (1980) I-C index was necessarily found to be more individualistic than collectivistic countries. For example, in studies that measured individualism-collectivism, European Canadians, who are presumably individualistic, were not significantly more individualistic than were Chinese Canadians who were considered to be collectivistic (Marshall, 2008).

In the present two studies, I aim to address this limitations by measuring the individual's endorsement of collectivism and examining how levels of collectivism is related to depth of self-disclosure, which is the extent to which they would reveal certain personal topics about themselves toward a close friend. Collectivism would be related to

greater depth of self-disclosure toward a close friend because collectivistic values are characterized by intimate and somewhat exclusive in-group relationships and perception of greater social penetration with their close friend (Gudykunst et al., 1987).

The second goal of the present two studies is to examine the mediator of the relationship between collectivism and depth of self-disclosure. To date, there are only a few studies that examined the mediator of cultural differences in depth of self-disclosure. Schug and her colleagues (Schug et al., 2010) found that relational mobility served as a mediator of cross-cultural difference in self-disclosure. In their study, they compared Americans and Japanese and found that Americans engaged in higher levels of intimate self-disclosure. They also found that this country difference was explained by greater relational mobility that exists for the Americans (i.e. Americans are in social environments where relationships begin and end more easily reported). Other researchers (Wheless et al., 1986) have identified locus of control as the mediator. The results revealed that external loci of control (i.e. individuals who agree with their cultural values more strongly than with their internal values) explained more of the cultural differences in patterns of self-disclosure (e.g., depth, amount, honesty, and valence), compared to internal loci of control. In particular, for individuals with internal loci of control, only depth and amount of self-disclosure were different between Americans and non-Westerners, whereas for individuals with external loci of control, depth, amount, honesty, and valence of intent were different between Americans and non-Westerners.

I propose that adult attachment styles would be another mediator of collectivism and depth of self-disclosure. Specifically, individuals who are collectivistic would be more securely attached to their close friends, and thus engage in more self-disclosure toward them. Experiencing secure attachment toward close friends would encourage self-disclosure because of feelings of closeness and trust toward the close friend. In the sections below, I review the previous research on adult attachment styles and its relationship with collectivism and self-disclosure.

### **Adult Attachment Styles**

Attachment theory originated with the influential work of John Bowlby (1951, 1958, 1959, 1960) and later was empirically tested by Ainsworth (1963, 1967). The theory conceptualized the tendency of humans to form and maintain intimate emotional bonds to their caregivers (Bowlby, 1977). Attachment refers to the mental representations of the self, partner, and relationships that is called “internal working models”, which incorporate self-perceptions of one’s personal worth of love and care from others and of others’ availability and awareness of one’s need (Bowlby, 1982).

Expanding on the initial infant-mother attachment theory (Bowlby, 1973, 1980, 1982), research has examined new domains such as older population (e.g., adolescents, young adults), different relationship types (e.g., dating couples, married couples, peers), and national differences. Hazan and Shaver (1987) conceptualized romantic relationship as an attachment process. Corresponding to three childhood attachment styles (Ainsworth

& Bell, 1970; Ainsworth, Bell, & Stayton, 1974; Ainsworth & Wittig, 1969), Hazan and Shaver classified adult attachment styles into three categories: secure, avoidant, and anxious. Although early adult attachment measures assigned people into distinct categories (see e.g., Bartholomew & Horowitz, 1991; Hazan & Shaver, 1987), more recent research has looked at dimensional models of attachment instead of categorical models due to potential problems (e.g., conceptual analyses, statistical power, measurement precision) (Fraley & Waller, 1998) in attempts to use categorical models (Fraley, Waller, & Brennan, 2000). There are two dimensions of attachment in which *avoidance* is associated with a negative model of others and a positive model of self, whereas *anxiety* is associated with a negative model of self and a positive model of others (Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987; Shaver & Fraley, 2004). Avoidance and anxious attachment styles have been found to influence individuals' subsequent social interactions and emotional development (Erickson, Sroufe, & Egeland, 1985; Lamb, Thompson, Gardner, & Charnow, 1985; Sroufe, Egeland, & Kreutzer, 1990).

Each attachment styles have been associated with distinctive characteristics in social interactions. Securely attached individuals who evaluate the self as worthy of love and care and others as trustworthy and dependable (Collins & Feeney, 2004) are higher on confidence and competency (Hazan & Shaver, 1990), relationship functioning and duration (Brennan, Hazan, & Shaver, 1989), levels of commitment and satisfaction in relationships (Levy & Davis, 1988), and self-worth (Collins & Read, 1990; Feeney &

Noller, 1990). Also, they are less emotionally impulsive and fearful of rejection from others (Hazan & Shaver, 1990). In contrast, anxious attachment style is characterized by greater emotional dependence, desire for more commitment and closeness (Feeney & Noller, 1990), and more intensive attention to their close relationship partner than is necessary for proper interdependency and intimacy (Pistole, 1995). People with anxious attachment often seem needy and clingy in the sense that they tend to be obsessive about their partner and hyper-vigilant to separation, and use their partner as a way to elevate self-affect (Baumgardner, Kaufman, & Levy, 1989; Mikulincer, Florian, & Tolmacz, 1990). Avoidant attachment style can be construed as deactivating strategies toward unresponsiveness, rejection, and abandonment from partner. Avoidant people are likely to protect the self-esteem by distancing self from others and avoiding experience of unmanageably negative and intense emotions. They are less dependent on others, less self-disclosing, and less involved in romantic relationships because they attempt to avoid closeness and potential overwhelming emotions produced from relationships (Pistole, 1995).

### **Collectivism and Adult Attachment Styles**

With growing interest in adult attachment styles in the past decades, many cross-cultural psychologists have investigated the effect of culture on attachment styles across different relationship contexts. However, previous studies on culture and adult attachment styles have yielded mixed results across studies. Even though there was a common thread of argument suggesting that collectivism and anxious attachment styles are related

(Agishtein & Brumbaugh, 2013; Frias, Shaver, & Diaz-Loving, 2014; Schmitt and colleagues, 2004; Wen, Liu, & Yuan, 2013; You & Malley-Morrison, 2000), collectivism and individualism still had inconsistent relationships with attachment styles across studies. For example, some studies, on one hand, have found that collectivism and both anxious and avoidant attachment styles are positively correlated (Friedman, Rholes, Simpson, Bond, Diaz-Loving, & Chan, 2010; Mak, Bon, Simpson, & Rholes, 2010; Wei, Russell, Mallinckrodt, & Zakalik, 2004). On the other hand, others found no evidence for the correlation between collectivism and avoidant attachment style (Agishtein & Brumbaugh, 2013) or only the avoidant attachment style was related to collectivism (Sprecher, Aron, Hatfield, Cortese, Potapova, & Levitskaya, 1994). Moreover, a few studies conducted in non-Western societies (e.g., Japan) (van IJzendoorn & Bakermans-Krarenburg, 2010) did not clearly find the relationships between non-Western cultures (presumably cultural collectivism) and insecure attachment styles.

Individuals in societies with presumably greater individualism (e.g., North America) appeared either securely attached to their relationship partners (Cheng & Kwan, 2008; Sprecher et al., 1994) or avoidantly attached to them (Schmitt et al., 2004; You & Malley-Morrison, 2000). Some argued that ethnic groups (e.g. Chinese-American, European-American, Japanese-American, and Pacific Islanders) or even individualism-collectivism did not differ in adult attachment styles (Doherty, Hatfield, Thompson, & Choo, 1994; van IJzendoorn & Bakermans-Krarenburg, 2010; van IJzendoorn & Sagi-Schwartz, 2008), which indicates the universality of distribution of adult attachment

styles across cultures. In addition, intercultural difference in adult attachments appeared rather less than intra-cultural difference (Van IJzendoorn & Sagi-Schwartz, 2008), which is definitely incongruent with the findings on cross-cultural difference in attachment styles. Therefore, one could argue that researchers have failed to bring a reliable pattern to light and thus further research is required in order to evaluate any limitation of past literature and deliver more reliable results.

#### **Limitations of Previous Research on Collectivism and Adult Attachment Styles**

Even though a number of studies (Cheng & Kwan, 2008; Ho, Zhang, Lin, Lu, Bond, Chan, & Friedman, 2010; Mak et al., 2010; Sprecher et al., 1994) found negative correlations between collectivism and secure attachment styles, there are several limitations that warrant attention.

First, most of the studies that found a negative relationship between collectivistic values and attachment security have examined national or ethnic differences in attachment styles based on Hofstede's (1980) study. Some studies simply accepted Hofstede's I-C index and assumed that East Asian participants were collectivistic and European Americans were individualistic without measuring each sample's cultural endorsement (Cheng & Kwan, 2008; Ho et al., 2010; Schmitt et al., 2004). This assumption can be problematic because it affects the whole validity of their findings when they make a conclusion based on possibly outdated national difference in cultural tendencies (Hofstede, 1980, 2001; Hofstede & Bond, 1984; Triandis, 1988, 1990, 1995).

Also, Schimmack and his colleagues (Schimmack, Oishi, & Diener, 2005) argued that Hofstede's I-C scale lacks content validity (e.g., Oyserman, Kemmemeier, & Coon, 2002; Voronov & Singer, 2002) because of its work-related items of individualism (e.g., job preference that allows free time for family). Compared with newer I-C measures with higher content validity (e.g., Hui, 1988; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1986; Triandis, Leung, Villareal, & Clack, 1985), Hofstede's index may have engendered misinterpreted data.

Moreover, Matsumoto (2002; Matsumoto & Juang, 2004; Matsumoto, Weissman, Brown, & Kupperbusch, 1997; see also Gudykunst et al. 1996) noted that Hofstede's (1980) analysis for Japanese being more collectivistic than Americans no longer describes the Japanese young adults of today (i.e., college students). Matsumoto (2002) suggested that in modern Japanese society, parents as 'primary socialization agents', emphasized personal success and happiness more than before, instead of inculcating traditional cultural values, which leads their children to independent self-construal and autonomy. Another study (Frias et al., 2014) assumed that Mexicans are more collectivistic than Americans but self-report I-C measurement refuted it in their Study 2. They argued that this change in cultural orientation might have come from high level of education and economic development. Based on the past changes across the world (Fiske, 2002; Matsumoto, 1999; Matsumoto, Kudoh, & Takeuchi, 1996; Oyserman et al., 2002; Schimmack et al., 2005), it calls for concerns about the use of Hofstede's I-C index without evaluation of individual cultural endorsement. Otherwise, the findings may only

suggest the relationship between individuals' unidentified cultural endorsement and attachment styles.

Second, most of research on cultural variation in adult attachment styles have mostly focused on romantic or marital partners (Doherty et al., 1994; Friedman et al., 2010; Hatfield & Rapson, 2010; Ho et al., 2010; Mak et al., 2010; Schmitt, 2008; Schmitt et al., 2004; Sprecher et al., 1994; Wang & Mallinckrodt, 2006; Wang & Ratanasiripong, 2010; Wen et al., 2013). Adult attachment styles can be observed in various interpersonal relationships such as parents, relatives, friends, and coworkers as well as romantic partners. Many have investigated attachment styles in kinships (Imamoglu & Karakitapoglu-Aygun, 2007; Kalsner & Pistole, 2003; Parade, Leerkes, & Blankson, 2010; Pearson & Child, 2007), romantic relationships, and even adolescents' peer relationships (Allen & Land, 1999; Armsden & Greenberg, 1987; Lieberman, Doyle, & Markiewicz, 1999; Pearson & Child, 2007; Rubin, Dwyer, Booth-LaForce, Kim, Burgess, & Rose-Krasnor, 2004) but adult attachment styles in friendship has been understudied. Romantic relationship and friendship have somewhat overlapping characteristics (e.g., intimacy, emotional support when needed) but they should be considered as distinct because "views of different relationships are not expected to be identical because they are influenced strongly by experiences in different context" (Furman & Wehner, 1994; Vanuitert & Galliher, 2012). People have different expectations about friendship, value it differently than other relationships including romantic ones, and thus behave accordingly (see Duck, 1991; 1992; Knapp, Ellis, &

Williams, 1980; Rawlins, 1993). Therefore, research on attachment in romantic relationships may not generalize to adult friendships (Bippus & Rollin, 2003).

Because of these limitations of previous research, I argue that there is a room for improvement in this field of research and that the positive correlation between collectivism and attachment insecurity may have been misinterpreted because there was no empirical evidence that the countries compared were indeed different on the individualism-collectivism dimension. Based on the change in cultural values across the world and the paucity of research regarding friendship, the present studies examined attachment security in adult friendships.

I propose that collectivistic individuals would report more secure attachment styles because individuals high on collectivism reported greater relationship closeness to their close others, including close friends (Cross et al., 2000; Gore et al., 2006; Uleman, Rhee, Bardoliwalla, Semin, & Toyama, 2000; Uskul, Hynie, & Lalonde, 2004). This is because those who are collectivistic place greater emphasis placed on closeness and harmony in relationships (Friedman et al., 2010). This indicates that they should have greater attachment styles because relationship closeness is related to greater attachment security (Bartholomew, 1990; Bartholomew & Horowitz, 1991; Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987; Simpson, 1990). Secure adults tend to be comfortable with closeness and intimacy, regard themselves as valuable and worthy of love from others, and perceive that others are generally nice and responsive (Collins & Feeney, 2004). In contrast, insecure adults (either avoidant or anxious) are less

comfortable with intimate relationship. Avoidant attachment style is, by definition, characterized by discomfort with relationship closeness and low levels of interdependence in close relationships (Edelstein & Shaver, 2004). They perceive and believe that attachment figures are generally unresponsive, unreliable, and unavailable, which often made them feel rejected in the past, and thus they pull toward independence over intimacy. Anxious adults are rather comfortable with closeness and eager for intimacy, but they regard themselves as being unworthy of love from others and yet attempt to get close by excessive and inappropriate approaches to others (Collins & Feeney, 2004). Taken together, I propose that collectivism and adult secure attachment style may be positively correlated to one another.

### **Attachment Styles and Self-Disclosure**

As self-disclosure features prominently in relationships, intimate self-disclosure to partners can be examined in terms of attachment perspective. In particular, individuals who have good previous attachment experiences build positive inner working models for self and others, which makes them expect their attachment figures to be responsive and caring in stressful situations (Bowlby, 1977; Kobak & Sceery, 1988; Mikulincer et al., 1990; referred in Mikulincer & Nachshon, 1991). These attachment styles serve not only as guiding rules for the way individuals respond to distress, but also they affect behaviors in interpersonal relationships. That is, the secure attachment styles cultivate individuals' certain attitudes and goals in social interaction (e.g., being proactive in new friendship, not being too offended by nonreciprocal partner, being an opener in the expectation that

partners would reciprocate), which in turn influences patterns of self-disclosure (Berg, 1987; Miller & Read, 1987).

Secure people were found to self-disclose more both in amount and depth in a more appropriate way compared to insecure people across the world (Collins & Read, 1990; Kobak & Hazan, 1991; Mikulincer & Nachshon, 1991; Pistole, 1993; Simpson, 1990). Less anxiously attached individuals were less emotionally dependent on partner, craving for less excessive commitment, and involved with less ups-and-downs and less inappropriate self-disclosures in a relationship (Pistole, 1995). Also, less avoidant people were more likely to be comfortable with closeness and intimacy, which leads to more self-disclosure in breadth and depth. Indeed, avoidant people's insecurity in their attachment figures keeps them away from partners and thus it brings about reluctance to self-disclose or to reciprocate partner's self-disclosure. In contrast, secure and anxious people tend to self-disclose more because they both have positive view of others and feel comfortable enough to disclose, granted that they are different in the extent, expectations, and reactions pertaining to self-disclosure. As the review above, communication styles appear different across attachment styles as well as culture.

### **Hypotheses and overview of present studies**

Based on the literature review above, the present studies were designed to assess collectivism at the individual level so that we can examine whether within-nation

variability in endorsement of collectivism is related to depth of self-disclosure to a close friend.

Cultural values affect individuals emotionally and cognitively (Rokeach, 1973) and function as a guiding rule throughout the course of individual's life (Schwartz, 1994; Schwartz & Bilsky, 1987, 1990). People learn these values within a cultural context and adapt them to their environments (Berry, 1976; Kerr, 2001). Thus, one could claim that cultural values vary by individuals in different types of environment even within a country. In other words, when collectivism is examined compared to individualism or vice versa, it should not be restricted to comparisons *between* countries (Vandello & Cohen, 1999). Comparisons of geographical and national groups would not be sufficient to probe the subjective nature of culture because individuals' engagement with cultural syndromes is more important rather than group membership (Adams, Anderson, & Adonu, 2004). By the same token, Morry (2005) suggested that examining cultural engagement at the individual level may be useful and thus be a reliable and valid way to delineate differences between individualistic and collectivistic cultures. Taken together, our study will measure I-C at the individual level within the US because once-stated cultural syndrome has changed across the world over time and now individual endorsement of cultural norms might be more worth to look at, instead of the typical method by averaging individual values and drawing cultural values from it.

My predictions with regard to the likelihood of depth of self-disclosure and adult attachment styles in collectivists' friendships are primarily grounded in (1) Triandis's

(1986, 1988) theory on collectivists' preference for in-group relationships, (2) the findings that relationship intimacy is positively associated with collectivism and secure attachment, and (3) the findings that self-disclosure features prominently in the development of close friendships where both collectivistic values and attachment security may be closely related to positive relationship outcomes.

Our hypotheses are the followings:

**H1.** The greater endorsement of collectivism will be positively related to more self-disclosure in depth toward a close friend.

**H2.** The greater endorsement of collectivism will be positively correlated with attachment security with a close friend. If collectivism is linked to more positive relationship outcome with in-group members and the relationship outcome is related to attachment security, then theoretically collectivism should predict attachment security in close friendships.

**H3.** The relationship between collectivism and depth of self-disclosure toward a close friend will be mediated by attachment security with a close friend.

## Study 1

### Method

**Participants.** Participants were 139 Americans (50 females, 51 males, 38 unspecified) completed the Individualism-Collectivism scale, and questions about their relationship with their close friend (friendship duration scale, self-disclosure scale, and adult attachment scale). The average age of the participants was 36.69 years old ( $SD = 12.28$ ) ranging from 19 to 72. Participants' ethnicities were as follows: 77 participants identified themselves as European American (55.4%), 10 as African American (7.2%), 5 as Asian American/Asian (3.6%), 5 as mixed (3.6%), 4 as Hispanic (2.9%), and 38 did not indicate their ethnic backgrounds (27.3%). With regard to relationship status, 38 participants reported they are married (27.3%), 31 are single (22.3%), 14 are in a relationship (10.1%), 5 are living together (3.6%), 4 are not applicable (2.9%), 3 Dating (2.2%), 3 Divorced (2.2%), and 1 Other (0.7%). Participants were recruited through Amazon MTurk and they received a small monetary compensation for their participation.

### Measures.

***Horizontal-Vertical Individualism and Collectivism Scale (HV-IC).*** The HV-IC scale (Triandis & Gelfand, 1998) was used to measure participants' level of individualism-collectivism. The HV-IC is a 16-item scale that measures the degree to which a person emphasizes in-group harmony over personal interest. The 16 items are classified into four groups of four items-with one axis of individualism-collectivism and the other axis of horizontal-vertical self: Horizontal Collectivism (focus on common

goals and interdependence but not willing to submit to authority;  $\alpha = .82$ ), Vertical Collectivism (emphasis on in-group goals and willing to submit to authority for the benefit of the group;  $\alpha = .83$ ), Horizontal Individualism (interested in being unique but not in having high status;  $\alpha = .73$ ), Vertical Individualism (emphasis on becoming distinguished through status and competition;  $\alpha = .61$ ).

In this study, Individualism was computed by averaging the Horizontal Individualism and Vertical Individualism sub-scores and Collectivism by averaging the Horizontal Collectivism and Vertical Collectivism sub-scores. The sample items are “My personal identity, independent of others, is very important to me.” for Individualism and “It is important to me that I respect the decisions made by my groups.” for Collectivism. Items are rated on a 7-point Likert scale ranging from *Strongly disagree* (1) to *Strongly agree* (7). Scores range from 16 to 112 in total, with higher scores indicating greater levels of individualism and collectivism. The Cronbach’s alpha in this sample was .61 for Individualism and .88 for Collectivism.

***Relational Length.*** To assess the length of relationship with their close friends, participants were asked a single item question, “*How long have you known your close friend?*” after being provided with the definition of “close friend”, “*Please think of a close friend who you consider to be in your ingroup. Ingroups refers to people with whom you have a history of shared experiences, and an anticipated future, that produce a sense of closeness, familiarity and trust. Please think of one of your close friends who is of the same gender as you and answer the following questions about this friend.*” The number

of years was converted to months and summed. The mean of relationship duration was 131.92 months (SD = 92.74) ranging from 12 to 372 months.

***Self-Disclosure toward a close friend.*** To assess the depth of self-disclosure (how much private information participants reveal to their friends), the Self-Disclosure Index (Miller, Berg, & Archer, 1983) was used. The SDI asks participants to indicate the degree to which they have self-disclosed on ten fairly personal topics (e.g., “What makes me the person I am”, “What I like and dislike about myself”) in the past with regard to their close same-gender friend. Items are rated on 5-point Likert scale ranging from *Disclosed not at all* (1) to *Disclosed fully and completely* (5). The total score was computed by averaging the items and the scores ranged from 10 to 50, with higher scores indicating more intimate self-disclosure to their close friend. The Cronbach alpha in this sample was .93.

***The Experiences in Close Relationships – Short Form (ECR-S).*** The ECR-S scale (Wei, Russell, Mallinckrodt, & Vogel, 2007) was used to assess adult attachment in close friendships. ECR questionnaire is originally developed by Brennan, Clark, and Shaver (1998) and then revised by Fraley, Waller, and Brennan (2000). In this study, I employed a short version of the original questionnaire (Brennan et al., 1998) and modified it to ask about close friends. The ECR-S consists of 12 items and has two subscales: Anxiety (fear of rejection and excessive emotional dependence on others) and Avoidance (fear of intimacy and discomfort with reliance on others). Participants rated how much they agreed with each of the 12 items that ask about their close friendship on a

7-point Likert scale (1 = *Disagree strongly* and 7 = *Agree strongly*). A sample items from the anxiety subscale is “I worry that my close friend won’t care about me as much as I care about him/her” and a sample items from the avoidance subscale is “I prefer not to be too close to my close friend”. Scores were computed range from 6 to 42 per subscale, with higher scores indicating greater levels of attachment anxiety or avoidance. The total score for Anxiety subscale is computed by summing the scores of six items with one reverse-coded, while the Avoidance sub-score is computed by summing the scores of the rest six items with the three reversed-coded items. The coefficient alpha for Anxiety dimension was  $\alpha = .86$  and for Avoidance dimension was  $\alpha = .85$  in this sample.

## **Results**

**Descriptive and Correlational Analyses.** Means, standard deviations, and range of scores for the variables are presented in Table 1. In terms of normality, none of the variables exhibited significant skewness or kurtosis. The means for collectivism, relational closeness, self-disclosure, and attachment styles indicated that the respondents reported endorsing moderately high on collectivistic orientations, having their friendship for 10.99 years on average, and slightly intimate self-disclosures. Based upon the possible score ranges (see Table 1), the means for anxious and avoidant attachment styles revealed that participants tended to report having low anxiety and avoidance attachment styles toward their close friend. In Table 2, the correlations among all of the variables are presented.

Table 1

*Means, Standard Deviations, and Range of Scores for All Variables*

	<i>M</i>	<i>SD</i>	<i>Range</i>
Collectivism	5.11	1.03	6
Relationship Length	131.92	92.74	360
SDI	3.49	.95	4
Anxiety	18.22	8.45	33
Avoidance	16.08	7.02	30

Table 2

*Correlation Coefficients for All Variables*

	<i>r</i>				
	Collectivism	Relationship Length	SDI	Anxiety	Avoidance
Collectivism	-	.16	.23*	-.35***	-.41***
Relationship Length	-	-	.10	-.23*	-.26**
SDI	-	-	-	-.12	-.64***
Anxiety	-	-	-	-	.57***
Avoidance	-	-	-	-	-

Notes. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Collectivism, Self-Disclosure, and Attachment Styles.** To test hypothesis 1, which predicted that greater collectivism would be positively related to more personal self-disclosure toward a close friend, I conducted regression analyses. Supporting Hypothesis 1, collectivism positively predicted depth of self-disclosure to close friends ( $b^* = .23, p = .017$ ) Collectivism negatively predicted anxious attachment style,  $b^* = -.35, p < .001$ , avoidant attachment style in the sample,  $b^* = -.41, p < .001$ . Hypothesis 2 was supported.

**Additional analyses.** Given that length of relationship would be positively related to attachment styles and depth of self-disclosure, (Berg & McQuinn, 1986; Hendrick,

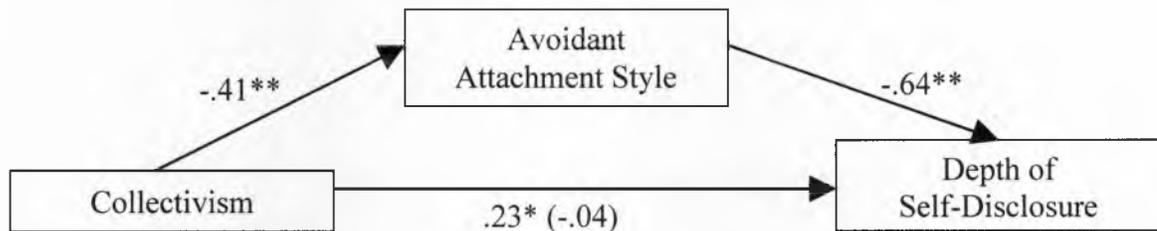
Hendrick, & Adler, 1988; Sprecher, 1987; Vangelisti & Banski, 1993), I controlled for length of relationship in the next set of analyses, and found that the relationship all remained significant. Collectivism was still significantly predicting depth of self-disclosure while controlling for relationship length,  $b^* = .22, p = .037$ . Collectivism remained a significant negative predictor of anxious attachment toward close friend,  $b^* = -.30, t(94) = -3.11, p = .002$ , and of avoidant attachment style,  $b^* = -.42, t(94) = -4.59, p < .001$ .

In the next set of analyses, I included individualism in the analyses as a predictor (along with collectivism) to test whether there was a statistically significant relationship between individualism and other relational variables (i.e., depth of self-disclosure, attachment styles). The results revealed that individualism did not significantly predict depth of self-disclosure or attachment styles. Individualistic endorsement was not significantly related to depth of self-disclosure ( $b^* = .02, p = .83$ ), anxious attachment styles ( $b^* = -.02, p = .80$ ), or avoidant attachment styles ( $b^* = .01, p = .92$ ). Thus, individualism was not examined in the mediation analyses.

**Mediation Effect of Attachment Styles between Collectivism and Depth of Self-Disclosure.** To test hypothesis 3 that predicted that secure attachment styles would mediate the relationship between collectivism and the depth of self-disclosure, I first conducted a series of multiple regression analyses using collectivism, relationship length, and adult friendship attachment as predictors of depth of self-disclosure. As *Figure 1* illustrates, collectivism negatively predicted avoidant attachment styles,  $b = -2.95, t(105)$

= -4.59,  $p < .001$ , and avoidant attachment styles and depth of self-disclosure (with collectivism in the model),  $b = -.09$ ,  $t(104) = -8.59$ ,  $p < .001$ . Lastly, collectivism was positively correlated with depth of self-disclosure,  $b = .23$ ,  $t(105) = 2.43$ ,  $p = .017$ .

To test whether avoidant attachment style mediated the relationship between collectivistic endorsement and depth of self-disclosure, I conducted a mediation analysis using bootstrapping procedures. Unstandardized indirect effects were calculated for each of 1,000 bootstrapped samples with the 95% confidence interval (Preacher & Hayes, 2008). The bootstrapped unstandardized indirect effect through the mediator (avoidant attachment styles) was significant with the 95% confidence interval of .15 to .42. Controlling for avoidant attachment style, the direct effect of collectivism on depth of self-disclosure was no longer statistically significant ( $b = -.04$ ,  $t(104) = -.46$ ,  $p = .65$ ), indicating that avoidant attachment style fully mediated the relationship between collectivistic endorsement and depth of self-disclosure. Individuals who agreed with collectivistic values more reported having lower levels of avoidant attachment styles, which predicted more intimate self-disclosure with their close friend. No significant mediation effect was found for anxious attachment styles.



*Figure 1.* Standardized regression coefficients for the relationship between collectivism and depth of self-disclosure as mediated by avoidant attachment style. The standardized regression coefficient between collectivism and depth of self-disclosure, controlling for avoidant attachment style, is in parentheses. Note. \* $p < .05$ , \*\*  $p < .001$

## Discussion

In Study 1, collectivism was positively related to depth of self-disclosure and secure attachment styles (i.e. less avoidant and anxious attachment styles), providing support for both hypothesis 1 and 2. Collectivism was positively correlated to depth of self-disclosure and attachment security in adult friendship, which indicates that individuals who endorsed collectivistic values tended to share more in depth, personal information and have less anxious and avoidant attachment styles when they are with their close friends. Collectivistic individuals are closely knitted to their in-group members and thus pursue intimate and harmonious group relationships. Self-disclosure is one of the most effective ways to form and develop intimacy in relationships, which collectivistic individuals often use to maintain their close relationship with in-groups.

In particular, collectivistic individuals would engage in in-depth self-disclosure (Barnlund, 1975; Wheelless et al., 1986; Yoo et al., 2012) because they make greater

distinctions and have exclusivity for in-group members compared to out-groups and thus consider sharing personal information to in-group members as being more intimate.

The third hypothesis was partially supported. Avoidant attachment styles partially mediated the relationship between collectivism and self-disclosure. Individuals high in collectivism reported having less avoidant attachment styles with a close friend and less avoidant attachment styles subsequently predicted greater depth of self-disclosure. It indicates that collectivistic individuals self-disclosed more intimate information to their close friend partly because they had less avoidant attachment styles with their close friend. Individuals who are high in avoidant attachment styles are unlikely to rely on others and expect others to be responsive if they talk about their distressful feelings (Collins & Read, 1990; Dion & Dion, 1985; Kobak & Hazan, 1991; Mikulincer & Nachshon, 1991; Mikulincer, Shaver, & Pereg, 2003; Pistole, 1995; Wei, Russell, & Zakalik, 2005), and thus they would not feel comfort in disclosing their personal information.

In contrast, anxious attachment style did not mediate the relationship between collectivism and self-disclosure, which was unexpected. These results may be because anxiously attached people have a negative working model of self with a less sense of self-efficacy (Wei et al., 2005) and they use hyper-activating strategies by embellishing their negative feelings for special attention (e.g., Mikulincer et al., 2003). At the same time, however, they have a positive view of others and feel more comfortable to self-disclose compared to people with avoidant attachment styles who view others in a negative way.

In fact, some researchers (Bauminger, Finzi-Dottan, Chason, & Har-Even, 2008) argued that anxious attachment styles had no effect on self-disclosure, while avoidant attachment styles made a significant negative contribution to it. In other words, people would self-disclose quite well regardless of whether they are more or less anxiously attached to others whereas self-disclosure was related to avoidant attachment styles.

Additional analyses on relationship length yielded non-significant correlations with collectivism and depth of self-disclosure. In contrast, relationship length was significantly negatively correlated with anxious and avoidant attachment styles. This indicates that individuals in a relatively newer friendship would have more insecure attachment styles or that insecurely attached individuals would have more short-term friendships. Controlling for relationship length in the analyses did not change the results.

Lastly, it is important to mention that individualism dimension had a low Cronbach's alpha value in this sample, which was below the widely accepted cut-off of .07. While the Cronbach alphas for HC and VC had  $\alpha$  values over .80,  $\alpha$  for HI was .73 and  $\alpha$  for VI was .61. Some studies (Cukur, de Guzman, & Carlo, 2004; Fischer et al., 2009) found the somewhat similar pattern of alphas for I-C where VC had the highest alpha value and HI had the lowest when HC and VI were moderately acceptable on reliability.

## Study 2

Because hypothesis 3 was only partially supported, I conducted Study 2 to examine whether the results for Hypothesis would replicate.

### **Method**

**Participants.** Originally 123 Americans were recruited but 6 were excluded for further analyses due to their missing items on depth of self-disclosure and attachment styles. 117 subjects' (50 male, 55 female, 1 other) ages ranged from 19 to 74 ( $M_{\text{age}} = 39.08$ ,  $SD = 1.53$ ). The breakdown of ethnic groups in this sample consisted of 85 Caucasians (69.1%), 14 Asian American/Asian (11.4%), 12 African American/Black (9.8%), 1 Hispanic/Latina/Latino (0.8%), 1 Middle Eastern (0.8%), 1 Native American (0.8%), and 1 Mixed (0.8%). As regards relationship status, 38 participants categorized themselves as Single (30.9%), 34 as Married (27.6%), 11 as Living-together (8.9%), 9 as In-a-relationship (7.3%), 8 as Divorced (6.5%), 7 as Dating (5.7%), 4 as Engaged (3.3%), and 2 as Other (1.6%). Participants were recruited through Amazon MTurk and they received a small monetary compensation for their participation.

**Measures.** The same measures used in Study 1 were employed to assess participants' levels of collectivistic endorsement, relationship length, levels of intimate self-disclosure, and attachment styles in a close friendship.

***Horizontal-Vertical Individualism and Collectivism Scale (HV-IC).*** Participants' cultural orientations were measured using Triandis and Gelfand's (1998) HV-IC scale. In this sample, Cronbach's alpha was  $\alpha = .64$  for Individualism and  $\alpha = .80$  for Collectivism.

***Relationship Length.*** The same questionnaire from Study 1 was used in the present study. The participants were asked to report how many years and/or months they had known their close friend and then years were converted to months. The average month of friendship in this sample was 148.47 ( $SD = 131.29$ ) ranging from 10 to 603.

***Self-Disclosure Index (SDI).*** The SDI (Miller et al., 1983) was employed to assess how much of personal information individuals have unfolded to their close friend. Cronbach's alpha ( $\alpha = .90$ ) proved an adequate internal consistency of the scale in this sample.

***The Experiences in Close Relationships – Short Form (ECR-S).*** The ECR-S scale (Wei et al., 2007) was used to measure the extent to which an individual feel secure or insecure about the self and other in a friendship. The Cronbach's alpha was  $\alpha = .82$  for Anxiety dimension and  $\alpha = .85$  for Avoidance dimension.

**Procedures.** Participants who did not participate in the previous study were administered the above measures online. The link led them to a set of the questionnaires asking their own cultural values, patterns of self-disclosure, attachment styles, friendship quality, and then several other measures excluded in the analyses reported in this paper. The participants were instructed to complete the entire survey in one sitting without distractions approximately in 30 minutes. Then, at the end of the survey, they were asked to report their demographic information and debriefed on the purpose and overview of the study.

## **Results**

**Descriptive and Correlational Analyses.** In Table 3, means, standard deviations, range of scores, and correlational coefficients for all the variables are presented. The patterns of means for collectivism, relationship length, self-disclosure, and anxious and avoidant attachment styles were consistent with the findings from Study 1.

Replicating the correlations of Study 1, avoidant attachment style was negatively correlated with self-disclosure, whereas anxious attachment style was not significantly associated with depth of self-disclosure ( $r = -.04, p = .679$ ). It indicates that those who identified themselves as avoidantly attached to their close friend tended to self-disclose less in depth.

**Collectivism, Self-disclosure, and Adult Attachment.** To replicate the results of the first and second hypotheses from Study 1 about the relationships of collectivism with depth of self-disclosure and attachment styles in a close friendship, regression analyses were conducted. The results from Study 1 were replicated in Study 2 and thus supported both hypotheses. Collectivism once again positively predicted self-disclosure,  $b^* = .38, p < .001$ , suggesting that individuals who scored high on collectivism engaged in more in-depth self-disclosure to their close friend. Also, collectivism negatively predicted both anxious attachment style ( $b^* = -.21, p = .038$ ) and avoidant attachment style ( $b^* = -.42, p < .001$ ), indicating that participants who endorsed collectivism reported having less insecure attachment styles to their close friends.

**Additional analyses.** When controlling for relationship length, the relationship between collectivism and self-disclosure ( $b^* = -.40, p < .001$ ) and avoidant attachment

style ( $b^* = -.40, p < .001$ ) remained significant. However, anxious attachment style was no longer predicted by collectivism, when controlling for relationship length,  $b^* = -.17, p = .095$ .

Furthermore, I included individualism in the analyses as a predictor (along with collectivism) in order to investigate whether there was a statistically significant relationship between individualism and other relational variables (i.e., depth of self-disclosure, attachment styles). The results, replicating Study 1, showed that individualism did not significantly predict any of the variables in this sample. The endorsement of individualism was not significantly related to depth of self-disclosure ( $b^* = .12, p = .187$ ), anxious attachment styles ( $b^* = .10, p = .297$ ), nor avoidant attachment styles ( $b^* = .11, p = .233$ ). Thus, individualism was again not examined in the mediation analyses.

Table 3

*Correlation Coefficients, Means, Standard Deviations, Score Range for All The Variables*

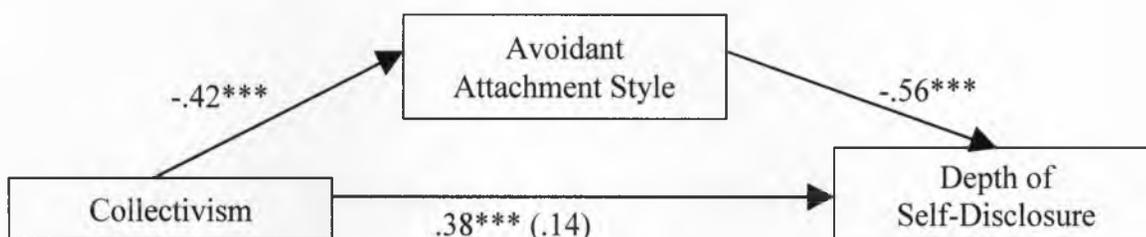
	<i>r</i>				
	Collectivism	Relationship Length	SDI	Anxiety	Avoidance
Collectivism	-	.22*	.38***	-.21*	-.42***
Relationship Length	-	-	-.002	-.21*	-.17
SDI	-	-	-	-.04	-.61***
Anxiety	-	-	-	-	.51***
Avoidance	-	-	-	-	-
<i>M</i>	5.17	148.47	3.66	18.62	16.89
<i>SD</i>	.88	131.29	.81	6.92	6.63
<i>Range</i>	4.5	593	3.3	31	28

Notes. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Mediation Effect of Avoidant Attachment Style between Collectivism and Depth of Self-Disclosure.** Mediation analysis was conducted to test the mediating role of avoidant attachment style in the relationship between collectivism and depth of self-disclosure. The mediation analysis was replicated and thus supported the third hypothesis. As *Figure 2* elucidates, collectivism was negatively correlated with avoidant attachment style,  $b = -3.07$ ,  $t(100) = -4.61$ ,  $p < .001$ , as was the correlation between avoidant attachment style and depth of self-disclosure when controlling for collectivism,  $b = -.07$ ,  $t(99) = -6.45$ ,  $p < .001$ . Lastly, collectivism and depth of self-disclosure were significantly associated in the positive direction,  $b = .35$ ,  $t(115) = 4.35$ ,  $p < .001$ .

To test whether avoidant attachment style mediated the relationship between collectivism and depth of self-disclosure, I conducted a mediation analysis using bootstrapping procedures. Unstandardized indirect effects were calculated for each of 1,000 bootstrapped samples with the 95% confidence interval (Preacher & Hayes, 2008). The bootstrapped unstandardized indirect effect was significant with the 95% confidence interval of .11 to .35. Hence, the mediation effect of avoidant attachment style on the relationship between collectivism and depth of self-disclosure was confirmed. Controlling for avoidant attachment style, the direct effect of collectivism on depth of self-disclosure was no longer statistically significant,  $b = .13$ ,  $t(99) = 1.59$ ,  $p = .116$ , indicating that avoidant attachment style partially mediated the relationship between collectivistic endorsement and depth of self-disclosure. Individuals who endorsed collectivistic values reported having less avoidant attachment styles, which predicted

greater depth of self-disclosure. No significant mediation effect of anxious attachment style was found.



*Figure 2.* Standardized regression coefficients for the relationship between collectivism and depth of self-disclosure as mediated by avoidant attachment style. The standardized regression coefficient between collectivism and depth of self-disclosure, controlling for avoidant attachment style, is in parentheses. Note. \* $p < .01$ , \*\*  $p < .001$

## Discussion

Consistent with my hypothesis and replicating the results from Study 1, in Study 2 individuals who endorse collectivism reported engaging in more in-depth of self-disclosure to their close friends. Additionally, avoidant attachment style mediated the relationship between collectivism and depth of self-disclosure. Individuals endorsing collectivism were more likely to disclose their personal information to their close friend, in part because they have less avoidant attachment style with their close friend. This indicates that collectivistic individuals experienced more intimacy and security in their relationship with their close friend.

Analyses on relationship length yielded somewhat different findings from Study 1. Collectivism was positively correlated with relationship length unlike Study 1, although both studies showed the positive correlations between the two variables,

meaning that individuals who value harmonious and intimate in-group relationships would have a long-term friendship. Depth of self-disclosure was again not significantly related to relationship length. Avoidant attachment style was not significantly related to relationship length unlike Study 1. Also, similar to Study 1, Cronbach's alpha for individualism was low in this sample.

### **General Discussion**

Across two studies, I examined the relationship between collectivism, depth of self-disclosure and adult attachment styles. The limitation of previous research on these topics was addressed by directly assessing collectivism in my two studies.

My hypotheses that collectivism would be positively related to depth of self-disclosure and secure attachment styles were supported in both studies. Individuals with greater endorsement of collectivism reported engaging in deeper self-disclosure and having less anxious and avoidant attachment styles when they interact with their close friend. Endorsement of collectivism has been linked with having fewer exclusive in-groups, and having greater interdependence and concerns about approvals of their in-groups. As such, collectivistic individuals engaged in relationship-enhancing behaviors (Cross et al., 2000; Gore et al., 2006; Morry, 2005; Wheeler et al., 1989). Considering that self-disclosure is one of the relationship-enhancing behaviors and builds the foundation of trust and intimacy, it can be inferred that collectivistic people would self-disclose in depth in order to develop and maintain a close in-group relationship.

Moreover, the in-group relationship of collectivistic individuals with a close friend is characterized by emphasis on closeness and intimacy in relationships (Friedman et al., 2010). This characteristic of in-group relationships could be related to collectivistic individuals experiencing secure attachment styles in a close friendship because relationship closeness and attachment security are positively related to one another. In other words, individuals with secure attachment styles are comfortable with intimacy that collectivistic people value in their in-group relationships including friendships, and thus these two variables would be positively related to each other.

The results from the present two studies that found that collectivism positively predicted depth of self-disclosure in a close friendship was generally consistent with the past research. Although individualism-collectivism was not assessed, previous studies had found that presumably collectivistic individuals (Non-westerns) engaged in more in-depth self-disclosure compared to presumably collectivistic individuals (Barnlund, 1975; Wheelless et al., 1986; Yoo et al., 2012). Depth of self-disclosure is intrinsically related to relationship closeness and intimacy and this is where collectivistic individuals' greater emphasis on in-group intimacy can explain their tendency to self-disclose in depth to a close friend.

However, the relationship between collectivism and adult attachment styles in close friendship appeared contradictory to the previous literature. In both studies, I found that collectivism and attachment security are positively correlated and only collectivism, not individualism, significantly predicted attachment styles with a close friend. This

result was interesting because a common finding from this body of research is that collectivism is related to anxious attachment styles. Researchers argued that this is because collectivistic individuals value being interdependent and thus accepted and liked by others for group harmony. This leads people to be anxious because concerns about whether they can be liked or not can make them hyper-vigilant about others' each and every behavior around them.

However, the results from the present study suggest that collectivistic values including interdependency is not necessarily linked to the need for approval and hence anxiety. Rather, individual's collectivistic and interdependent attribute may serve as a contributing factor in developing an adequate sensitivity for others and harmonious relationships. Also it can be a determinant of forming secure attachment to a close person and then having better relationship quality (Cross et al., 2000), intimacy, and hence more intimate self-disclosure to one another. It works the other way around as well, that is, self-disclosure predicts relationship closeness if one perceives about their partner being available and responsive to their needs (i.e., secure attachment style) (Laurenceau et al., 1998). It is clear that individuals with collectivistic values (i.e., interdependency and emphasis on relationships) generally are motivated to develop and maintain close relationships. Therefore, our findings on the relationship between collectivism and attachment security are new to the field of study and shed new light on the understanding of collectivism and adult attachment styles in close friendships.

Furthermore, I found that avoidant attachment style mediated the relationship between collectivistic endorsement and intimate self-disclosures toward a close friend. The results indicate that collectivistic individuals are more likely to reveal their personal information to their close friend maybe because they have less avoidant attachment styles with the friend. Avoidant attachment style is defined as discomfort with intimacy and thus distancing oneself emotionally from their partner, which naturally leads to less engagement in self-disclosure. Therefore, when collectivistic people self-disclose in depth to a close friend, less avoidant attachment style with less discomfort with intimacy would influence their self-disclosure behaviors.

However, the results showed that anxious attachment style did not have the mediation effect on the relationship between collectivistic endorsement and depth of self-disclosure. From the perspective of attachment styles, avoidant attachment style seems to be more related to self-disclosure than anxious attachment style. For example, comfort with self-disclosure mediated a path from avoidant attachment style to loneliness and subsequent depression, while self-efficacy mediated the effect of anxious attachment style on loneliness and subsequent depression (Wei et al., 2005). Also, avoidant attachment style negatively predicted self-disclosure, whereas anxious attachment style did not significantly predict it (Bauminger et al., 2008). This mediation analysis provides a new perspective for understanding cultural effect on self-disclosure behaviors. The mediation effects propose the important role of self-disclosure and attachment styles and,

in turn, relationship closeness and intimacy in the development of secure friendships.

### **Limitations**

Although the results showed the predicted relationships between variables, there are several limitations of the present studies that require attention. First, the studies used participants' self-report measures despite the dyadic characteristics of self-disclosure and general social interaction. Although it is noteworthy to reveal the effects of collectivistic endorsement on attachment security in a close friendship, the collectivistic orientation of both individuals should be included in analysis to fully comprehend the process. Second, the I-C measure used in the present studies may not be the best measurement for this research where the relationship target was specific (Uleman et al., 2000) and cultural tendency was measured at the individual level. Individualism and collectivism depend on social context and perhaps the current I-C measure is not specifically developed for a certain context with a close friend. A consideration of other aspects of Individualism-Collectivism dimensions such as the distinctions between normative (i.e. attitudes and values) and relational (i.e. interpersonal relatedness versus distance) I-C (Kagitçibasi, 1997) may help future study to explain and reconcile the contradiction between our new findings and the previous mixed results. Lastly, it is important to note that the results of this research are based on individuals within one culture, the United States. Although the study was originally designed to examine collectivism at the individual level, our findings may have been influenced by general American culture and life style.

### *Future Directions*

Taken the limitations together, future researchers should examine further the effects of endorsing collectivistic values (e.g. interdependence) at the level of individuals on self-disclosure behaviors and adult attachment styles by employing different Individualism-collectivism measures than HV-IC measure such as relational-interdependent self-construal (Cross et al., 2000), allocentrism (Hui, 1988), relational I-C (Kagitçibasi, 1997), or collectivism-oriented self-construals with the concept of relatedness (Kashima, Yamaguchi, Kim, Choi, Gelfand, & Yuki, 1995). Then, next step may be to compare out-group and in-group relationships where individualism and collectivism have impacts on in order to examine the difference in cultural effect on communication styles and adult attachment styles depending on social contexts based on Triandis' model. Such studies may further clarify the way cultural endorsement, self-construals, and a variety of relationship contexts shape individuals' interpersonal behaviors.

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## Appendix A: Consent Form

**Purpose:** The purpose of the study is to examine (1) the relationship between people's personality and their perception of others and (2) the relationship people have with different people. Seung Hee Yoo, is an Assistant Professor in the Psychology Department at San Francisco State University. **To participate, you must be 1) 18 years old or older 2) living in the United States and 3) fluent in English.**

**Procedures:**

- If you agree to participate in this online research study, you will complete several online questionnaires about your personality and your relationships with others as well as some basic demographic information.
- Please complete the questionnaire in one sitting. You must complete the survey in a PRIVATE and quiet environment that is free of distractions. It is also very important that you complete the parts of the study in the correct order.
- This study will take approximately 20-30 minutes to complete.

**Risks:** There is a risk of loss of privacy. However, no names or identities will be used in any published reports of the research.

**Confidentiality:** All of your responses will be confidential. Your responses will only be identified by a number and never linked with your name. Your responses will be kept in a secure locked location and only the researchers involved in this study will have access to the information you provide. All electronic data will be securely stored in an encrypted

document or database on a password protected computer.

**Direct Benefits:** There will be no direct benefits to the participant.

**Costs:** There will be no cost to you for participating in this research.

**Academic Credit:** You will receive \$0.50 mturk rewards for participating in this study.

Participation in this study is voluntary.

**Alternatives:** The alternative is not to participate in the research.

**Questions:** Any questions or concerns should be directed to the principal investigator, JiYeon Seol at [jyseol@mail.sfsu.edu](mailto:jyseol@mail.sfsu.edu).

Questions about your rights as a study participant, or comments or complaints about the study, may also be addressed to the Office for the Protection of Human Subjects at (415) 338-1093 or [protocol@sfsu.edu](mailto:protocol@sfsu.edu).

**PARTICIPATION IN THIS RESEARCH IS VOLUNTARY.** You may choose to participate or not, and may answer only the questions you feel comfortable answering. You may stop at any time. If you do not wish to participate, you may simply log out, with no penalty to yourself. **If you do participate, completion of the survey indicates your consent to the above conditions.**

**Are you 18 years of age or older? YES / NO**

## Appendix B: Demographic Form

1. How old are you? (in years)
2. What is your gender? Male, Female, Other (please specify)
3. What is your ethnicity? Please check all that apply: African-American/Black, Asian American/Asian, European American/White, Hispanic/Latina/Latino, Middle Eastern, Native American, Pacific Islander, Mixed, Other (please specify)
4. What is your current relationship status? (Check all that apply): Single, Dating, In a relationship, Engaged, Married, Divorced, Living together, Long Distance relationship, Other (please specify)
5. What is your class level in school? Freshman, Sophomore, Junior, Senior, Graduate Student, Not Applicable, Other (please specify)
6. What is your country of birth?
7. What country (or countries) were you primarily raised?
8. What is your native language?
9. What other language(s) (other than your native language) are you fluent in?