A Cross-Cultural Comparison of Parental and Peer Attachment Styles among Adult Children from the United States, Puerto Rico, and India

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A Cross-Cultural Comparison of Parental and Peer Attachment Styles among Adult Children from the United States, Puerto Rico, and India

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Parental and peer attachment is central to perceived and actual communication behavior. This investigation examines perceptions of attachment among people from the United States, Puerto Rico, and India to investigate the variance in parental and peer attachment levels cross-culturally. Puerto Rican participants expressed less overall attachment to their mothers than did Indian and American participants. Indian participants conveyed stronger attachment to their fathers compared to participants from Puerto Rico. US participants showed stronger attachment to their peers than did people from India. This investigation suggests that the tenets of attachment theory are not culturally universal.

Keywords: Parental attachment; Peer attachment; Individualistic cultures; Collectivistic cultures; Adult children

Attachment theory asserts that people have a psychological tendency to seek closeness with another person, and that they feel secure when the person is present and they feel anxious when the person is absent. Among the fundamental tenets of attachment theory are that a caregiver’s sensitivity to an infant leads to a secure attachment, that secure attachment in infancy and early childhood leads to later...
social competence, and that children who are securely attached use the caregiver as a secure base for exploring the external world (Rothbaum, Weisz, Pott, Miyake, & Morelli, 2000).

Attachment changes in adolescence as peer relationships develop and children develop an increased sense of independence. As independence increases, peer influence increases. Attachment theory has been widely studied across the lifespan of an individual, but it has not been broadly studied outside of the Western world. Does attachment theory generalize around the world or do differences between cultures also result in differences in patterns of attachment? More precisely, does attachment theory vary or remain constant in individualistic and collectivistic societies? This study seeks to answer these questions.

The current study examines perceptions of parental and peer attachment among adult children from the United States, Puerto Rico, and India to further investigate the variance in parental and peer attachment levels cross-culturally. The literature review addresses parental and peer attachment as adult children develop. Next, the study reviews research examining attachment and communication as well as attachment and diverse cultures. Finally, descriptions from each cultural group are provided as such information informs the focus of study.

**Attachment Theory and Research**

**Parental and Peer Attachment**

Parental and peer attachment affects individuals from the “the cradle to the grave” (Roisman, Madsen, Hennighausen, Sroufe, & Collins, 2001, p. 159). Attachment is related to psychological health, self-image, self-esteem, well-being, empathy, core beliefs, relational development, and academic achievement (Blissett et al., 2006; Bowlby, 1969, 1973, 1980; Fass & Tubman, 2002; Kenny & Sirin, 2006; Laible, Carlo, & Roesch, 2004; Wilkinson, 2004).

Attachment is defined as an enduring affectional bond of substantial intensity (Armsden & Greenberg, 1987, Paterson, Pryor, & Field, 1995). Parental and peer attachment are related to impressions of one’s self as well as observable behaviors (Blissett et al., 2006; Bowlby, 1969, 1973, 1980; Fass & Tubman, 2002; Kenny & Sirin, 2006; Laible, Carlo, & Roesch, 2004; Wilkinson, 2004). Bowlby (1969, 1973, 1980) conducted considerable work in the field of attachment theory arguing that children with secure attachments to caregivers are more well-adjusted than those with low attachment. The theory implies that caregivers influence a child’s development by showing the child how to cope, handle life’s problems, and deal with others.

The primary caregiver holds incredible influence during a child’s early development. Parental attachment affects social competence, adjustment, and perceptions of others and oneself (Fass & Tubman, 2002). The strength of parental attachment has been associated with individuals’ feelings about themselves and has also been found to affect social competence (Paterson et al., 1995) and self-image.
Both parents play an important role in a child’s development. Paterson et al. (1995) concluded that maternal and paternal attachments have equal affects on self-esteem despite fathers typically having less interaction with the child. Adolescents with low attachment to parents have been found to have greater difficulties in conduct, more depression, and other negative experiences (Kenny & Sirin, 2006; Nada Raja, McGee, & Stanton, 1992).

Attachment also influences individuals’ relationships, both romantic and nonromantic, with others throughout life. Secure adults feel confident that their partners will be available to them when needed. They are open to depending on others and having others depend on them (Fraley, 2004). Anxious/ambivalent adults are insecure in their relationships. They fear others will not love them completely and are easily frustrated when their needs go unattended. Avoidant adults appear not to care about close relationships and may prefer not to be dependent on others or others to be dependent on them (Fraley, 2004).

As noted earlier, attachment appears to change in adolescence. Peer relationships become increasingly important as children develop an increased sense of independence. Peer attachment plays a different role for adolescents than parental attachment, due in part to the divergent roles parents and peers play in adolescent’s lives (Paterson et al., 1995). Even as peer relations gain importance in adolescence, parental attachment continues to influence children (Brown, Mounts, Lamborn, & Steinberg, 1993; Parke & Ladd, 1992).

**Attachment and Communication**

Attachment is related to communication in a variety of ways since the central goal of attachment is proximity-seeking. From the beginning of the child’s life, and maybe even before, the mother’s sensitivity to, and communication with, the child influences the child’s attachment to the caregiver (Shin, Park, & Kim, 2006). People who hold different attachment styles also exhibit different communication patterns (Bretherton, 1990). Bretherton (1990) demonstrated that in general, people who are secure communicate fluently, coherently, and in an emotionally open manner. On the other hand, people who are insecure tend to be incoherent, dysfluent, and they selectively ignore the communicative signals of others. Attachment differences predict how comforting messages are perceived, how others’ supportiveness is viewed (Bachman & Bippus, 2005), and how affective communication skills are perceived (Jones, 2005). Unhealthy parenting resulting in poor attachment leads to many negative communicative and relational behaviors later in one’s life including relational problems (Jang, Smith, & Levine, 2002) and intimate violence (Schwartz, Hage, Bush, & Burns, 2006).

**Attachment and Diverse Cultures**

Diverse cultures and diverse co-cultures have been examined for differences in attachment styles. The conclusions on different co-cultures are not definitive. Arbona and Power (2003) found no differences between European American and Mexican
American high school students on the dimensions of anxiety and avoidance (two dimensions of attachment) even though they surveyed a large number of participants.

On the other hand, Wei, Russell, Mallinckrodt, and Zakalik (2004) compared African American, Asian American, Hispanic American, and Caucasian college students. These researchers found that Asian Americans and Hispanic Americans reported greater attachment anxiety, whereas African Americans and Asian Americans reported greater attachment avoidance than did their Caucasian peers. Attachment anxiety was related to negative mood in all four groups. In addition, relationships among attachment, gender, ethnicity, and sexual orientation have been discovered (Arbona & Power, 2003; Hahm, Lahiff, & Barreto, 2006; Mohr & Fassinger, 2003; Wei et al., 2004).

Attachment probably also varies across cultures and early research in this arena has suggested that such differences may be discerned (Huiberts, Oosterwegel, Vandervalk, Vollebergh, & Meeus, 2006; Kenny, Griffiths, & Grossman, 2005; Rothbaum et al., 2000; Wang & Mallinckrodt, 2006). Rothbaum et al. (2000) compared cultural values from the United States and Japan and argued that tenets of attachment theory reflect values and meaning from Western culture such as secure attachment and the construction of social competence. They argue that the cultural value of a child’s autonomy influences the meaning of sensitive and responsive caregiving by parents. Further, the value of sensitivity in caregiving differs from one culture to the next. Mothers in the two cultures communicate with their children differently. In Japan early interactions are more emotion-based, whereas in the United States they are more information-based.

College students in Belize were surveyed by Kenny et al. (2005). These late adolescents demonstrated that favorable self-images were related with secure ratings of parental attachment. Ethnic identity was stronger for those students whose mothers were high school graduates compared with students whose mothers had completed college or a graduate degree. Education, particularly for the maternal parent, may serve as an influence on ethnic identity.

Wang and Mallinckrodt (2006) compared ideas about adult romantic attachment among students from Taiwan and the United States. The study concluded that individuals from Taiwan reflected ideas of appropriate attachment involving more anxiety and avoidance in comparison to the secure attachment from the US sample. Participants from Taiwan also reflected higher interdependent behaviors and lower independent behaviors as constituting secure attachment in contrast to US participants. Rothbaum et al. (2000) suggest that “the [attachment] theory and these derivative interventions [parent-based and therapeutic-based interventions] require renewed scrutiny through the lens of culture” (p. 1093). Cultural inquiry into attachment can begin by examining parental and peer attachment with other related measures among culturally diverse samples. The cultural comparisons of study sites allow us to provide some context to the information provided by the survey.
Cultural Descriptions of the United States, Puerto Rico, and India

Individualism and Collectivism

Three sites were selected for this study. India and Puerto Rico were selected because they represent collectivistic cultures and the United States is generally considered to be individualistic. Since Triandis’ (1972) monumental contribution to understanding subjective culture and Hofstede’s (1980) *Culture’s Consequences*, the constructs of individualism and collectivism have been central to intercultural studies (e.g., Fitzpatrick et al., 2006). In general, collectivistic societies emphasize group cohesiveness, emotional interdependence, obligation, and group solidarity. Individualistic societies, by contrast, emphasize personal autonomy, emotional independence, singular actions, and personal goals. More recently, Oyserman, Coon, and Kemmelmeier (2002) conducted a meta-analysis on these constructs and concluded that cultural differences were smaller and less systematic than once purported.

Nonetheless, the individualism–collectivism dichotomy is useful in intercultural research and is used widely at the present time (e.g., Oppenheimer, 2006; Srite & Karahanna, 2006; Zha, Walczyk, Griffith-Ross, Tobacyk, & Walczyk, 2006). People in individualistic cultures are more independent and less loyal to the group. People in collectivistic cultures choose the group over themselves in conflict between the two. People who champion individualistic cultural values are less concerned about the opinions of others, whereas those who espouse collectivistic cultural values comply with the opinions of others in their group. People in the United States may thus evidence less attachment to parents and peers than do people in India and Puerto Rico.

Although India and Puerto Rico may be classified as similar in their collectivism, they are very different in other ways. Ethnic, religious, and economic factors are variable between the two. Current research suggests that individual-level factors mediate the effects of individualism and collectivism (e.g., Gudykunst et al., 1996; Ogawa, Gudykunst, & Nishida, 2004; Singelis & Brown, 1995). Finally, recent reports show no differences in some communication behaviors relevant to individualism and collectivism between the United States and Puerto Rico (e.g., O’Mara, Long, & Allen, 2003). The long-term relationship between the United States and Puerto Rico, the physical closeness, and the common Christianity in the two countries may create more similarities than differences between the United States and Puerto Rico.

Description of the Three Countries

A snapshot of each country is provided next. The United States is estimated to have a population of 298,444,215 (Central Intelligence Agency, 2006c). In the United States, 20.6% of the population are under 15 years old, 67% of the population are 15–64 years old, and 12.4% of the population are 65 years or older. A slightly higher proportion of females (51%) than males (49%) occurs in the United States.
The ethnic diversity reflected in the United States consists of 81.7% as white, 12.9% black, 4.2% Asian, 1% American Indian and Alaskan native, and 0.2% native Hawaiian and other Pacific Islander. The two most practiced religions in the United States are Protestant (52%) and Roman Catholic (24%) (Central Intelligence Agency, 2006c).

Eight percent of the population at the Upper Midwest site of the study live below the poverty level, and the infant mortality rate is 6 per 1000 births (US Census Bureau, 2000). Additionally, the 1999 median household income was $47,111, and per capita income was $23,198. Fifty-three percent of households earn less than $35,000 per year (US Census Bureau, 2000). Most of the population is Christian, with Lutheranism and Catholicism being the largest denominations.

Puerto Rico is estimated to have a population of 3,927,188 (Central Intelligence Agency, 2006b), much smaller in both overall population and land mass in comparison to the United States (Central Intelligence Agency, 2006c). Puerto Rico and the United States share high literacy rates and low drop-out rates. In Puerto Rico the two most common languages are Spanish and English (Central Intelligence Agency, 2006b). Just over 80% of the Puerto Rican population over the age of 25 has graduated from high school, as compared to nearly 84% in the Upper Midwest Region of the United States (US Census Bureau, 2000). In Puerto Rico, female households with no husband present are 21.3%, and with children under 18 it is 10.4% (US Census Bureau, 2000). In the Upper Midwest location of the study, female households with no husband present are 9%, and with children under the age of 18 are 6% (US Census Bureau, 2000). In Puerto Rico 85% of the population is Catholic. Ninety-five percent of the people are native Puerto Rican with mixed Spanish, African, and Taino heritage. Roughly 48% of the population is male and nearly 52% of the population is female (US Census Bureau, 2000). Nearly 45% of the population in Puerto Rico live below poverty level, and the infant mortality rate is 10 per 1,000 births. The 2000 median household income was $14,412, and per capita money income $8,185 (US Census Bureau, 2000).

India is estimated to have a population of 1,095,351,995 (Central Intelligence Agency, 2006a), roughly three times larger than the population of the United States (Central Intelligence Agency, 2006c). India is slightly more than one third the size of the United States. In India, 30.8% of the population are under 15 years old, 64.3% of the population are 15–64 years old, and 4.9% of the population are 65 years or older. A slightly higher proportion of males than females occurs in India. Many individuals in the business sector speak English in India and English is a language of associate status for the country. Hindi is the official language of India. In addition to both Hindi and English, 14 other languages are practiced in the country. The ethnic diversity reflected in India consists of 72% as Indo-Aryan, 25% Dravidian, and 3% of the population as Mongoloid and other. The three most practiced religions in India are Hindu (80.5%), Muslim (13.4%), and Christian (2.3%) (Central Intelligence Agency, 2006a).
Focus of the Study

While attachment theory has been widely studied across the lifespan of an individual, the theory can be further strengthened by incorporating more international perspectives, as much of the research reflects solely a Western perspective (Rothbaum et al., 2000). Examining parental and peer attachment among culturally diverse samples provides a more global consideration of attachment theory and research. Trees (2006), in a recent review of attachment theory and research, indicates that “as researchers continue to investigate attachment processes, they should keep in mind cultural differences and social changes in family forms and experiences that may influence communication and attachment” (p. 177). Furthermore, more diverse samples in family communication scholarship and research are needed:

At this stage in the history of family communication studies, there is a need to keep at the forefront the goal of creating a portrait of family communication that is diverse, complex, and inclusive . . . the image is inadequate nationally and does not go far enough globally. (Diggs & Socha, 2004, pp. 259–260)

If cultural differences exist among the three countries of interest, they may well be enacted in personal relationships. Families have changed in size, structure, and behaviors over time (Daly, 2000). Families are also affected by culture, religion, economic status, and educational attainment. Family members may have different perceptions of their families and these differing perceptions may change as family members grow and develop. Because of the important role of parents and peers in the lives of young adults, perceptions of these relationships are essential among globally diverse research samples.

Cross-cultural comparisons help us understand families around the world. This investigation was designed to better understand parental and peer attachment in individualistic and collectivistic cultures. The pattern of increasing peer attachment in late adolescence/early adulthood was established originally in an individualistic culture. This investigation questions this assumption in collectivistic cultures. The following research questions guided the study:

RQ1: Do adult children from the United States show stronger levels of attachment to their peers than do adult children from Puerto Rico and India?

RQ2: Do adult children from Puerto Rico and India show stronger levels of attachment to their mothers and fathers than do adult children from the United States?

Method

Participants

Overall, 182 students completed a parental and peer attachment style instrument. From the sample, 50 participants (27.5%) represented the Upper Midwest region of the United States, 36 participants (19.8%) came from Puerto Rico, and
96 participants (52.7%) came from India. Demographic information about participants from all three locations helps to provide deeper understanding for a more accurate interpretation of the results, revealing that participants from each sample were different in many ways. A native Indian cultural agent was identified to collect the data in India and a Puerto Rican native collected the data in Puerto Rico.

**United States**

Upper Midwest participants on average were 23 years old ($SD = 4.41$) with a range in age of 21–48 years old. The Upper Midwest sample reflected more females ($n = 33, 66\%$) than males ($n = 17, 34\%$). Upper Midwest participants had an average of two siblings ($SD = 1.9$) with a range of 0–13 siblings. Additionally, 47 Upper Midwest participants (94\%) indicated they did not live at home with their family at the time of the study. Furthermore, 38 Upper Midwest participants indicated having a job while going to college working an average of 24.5 hours a week ($SD = 9.99$). When considering parental education among Upper Midwest participants, 13 mothers (26\%) and 16 fathers (32\%) had at most a high school diploma; 7 mothers (14\%) and 8 fathers (16\%) had completed some college; 25 mothers (50\%) and 21 fathers (42\%) had a college degree; and 5 mothers (10\%) and 5 fathers (10\%) had more than a college degree. While ethnic background was not included in the demographic information provided by participants, the ethnic diversity is limited at the university institution in North Dakota where data was collected. In fact, over 94.2\% of the population is Caucasian with 5.5\% of the population reflecting the African American, Hispanic, American Indian, Asian, and other race categories (US Census Bureau, 2000).

**Puerto Rico**

Puerto Rico participants on average were 29.7 years old ($SD = 10.47$) with a range in age of 21–60 years old. The Puerto Rican sample also reflected more females ($n = 27, 75\%$) than males ($n = 9, 25\%$). Puerto Rican participants had an average of two siblings ($SD = 1.57$) with a range of 0–6 siblings. Additionally, 24 Puerto Rican participants (66.7\%) indicated they lived at home with their family at the time of the study. Furthermore, 25 Puerto Rican participants (69.4\%) indicated having a job while going to college working an average of 25.6 hours a week ($SD = 11.64$). When considering parental education among Puerto Rican participants, 7 mothers (20\%) and 12 fathers (34.3\%) had at most a high school diploma; 6 mothers (17.1\%) and 1 father (2.9\%) had completed some college; 16 mothers (45.7\%) and 11 fathers (31.4\%) had a college degree; and 6 mothers (17.1\%) and 11 fathers (31.4\%) had more than a college degree.

**India**

Participants from India on average were 20.3 years old ($SD = 0.54$) with a range in age of 19–21 years old. The sample from India reflected more males ($n = 56, 58\%$)
than females ($n = 32, 33\%$). Participants from India had an average of one sibling ($SD = 0.49$) with a range of 0–3 siblings. Additionally, 43 participants from India (51\%) indicated they currently lived at home with their family. The majority of Indian participants (98\%) did not have a job at the time of the study. When considering parental education among participants from India, 49 mothers (51\%) and 10 fathers (10\%) had at most a high school diploma; 18 mothers (19\%) and 11 fathers (12\%) had completed some college; 17 mothers (20\%) and 57 fathers (59\%) had a college degree; and 2 mothers (2\%) and 7 fathers (7\%) had more than a college degree.

**Procedure**

Participants from the Upper Midwest region completed a parental and peer attachment survey during the fall 2005 semester. Puerto Rico students responded to the same survey in the English language during the spring 2005 semester. Participants from India responded to the same questions in English during the summer 2005 semester. Responses from the Puerto Rico participants and participants from India were delayed due to difficulties obtaining IRB clearance at the university institution. Students in the Upper Midwest, Puerto Rico, and India who were enrolled in college classes were asked to complete a survey.

The study utilized a cultural agent from each of the cultures studied as a part of the research team in order to understand the best approach to data collection in each country. The cultural agent was used to increase the similarity and trust between the participant and the researcher as well as to obtain candid responses from participants. Participants were assured confidentiality and told the research confederate would not even see their survey results. The use of an insider or cultural agent have been found to increase the responsiveness for reaching diverse sample participants and create more meaningful dialogue when conducting research beyond the researcher’s primary culture (Child, Pearson, & Nagao, 2006; Littlefield & Thweatt, 2004).

Within all three countries studied, significant proportions of individuals were fluent in the English language (Central Intelligence Agency, 2006a, 2006b). In Puerto Rico, the cultural agent selected students who were enrolled in English classes, and the survey provided an opportunity for them to further practice the English language. The cultural agent also allowed individuals to complete the survey in Spanish if desired. A few participants completed the survey in Spanish, but the cultural agent in Puerto Rico purposely matched the research team with a sample accustomed to engaging in English. In India, the Indian resident and cultural agent selected college student participants who worked in the business sector and were either fluent in English or spoke English as a first language. In both cases, the judgment of the cultural agent was trusted as this individual in both instances was someone intimately familiar with the customs, practices, and day-to-day functioning of individuals in the host culture.
Inventory of Parent and Peer Attachment (IPPA) Measure

The researchers determined parental and peer attachment levels using Armsden and Greenberg’s (1987) Inventory of Parent and Peer Attachment (IPPA). The inventory measures mother, father, and peer attachment. The IPPA assesses adolescents’ perceptions of the positive and negative affective/cognitive dimension of relationships with their parents and peers in accordance with attachment theory.

Over 40 published articles since 1991 have used the IPPA. The instrument is comprised of 25 items with question responses on a five-point scale in each of the mother, father, and peer sections. Each overall individual attachment measure for each group (mother, father, and peer) can be further divided into three subscales: trust, communication, and alienation. Thus, the IPPA instrument yields 12 total attachment scores for each individual participant. Internal reliabilities (Cronbach’s alpha) for the scale are: mother attachment, 0.87; father attachment, 0.89; peer attachment, 0.92. The IPPA scale maintained strong reliability among participants of the sample in all three sections. The scale maintained excellent reliability for mother attachment ($\alpha = 0.91$), father attachment ($\alpha = 0.93$), and peer attachment ($\alpha = 0.91$).

The trust subscale consisted of 10 items with questions such as “I trust my [mother/father],” “my [mother/father] accepts me as I am,” and “I trust my friends.” The responses were on a five-point scale ranging from “almost never or never true” to “almost always or always true.” The subscale maintained excellent reliability for mothers ($\alpha = 0.87$), fathers ($\alpha = 0.88$), and peers ($\alpha = 0.88$).

The communication subscale consisted of nine items with questions such as “I like to get my [mother’s/father’s] point of view of things I’m concerned about,” “I tell me [mother/father] about problems and troubles,” “I can count on my friends when I need to get something off of my chest,” and “if my friends know something is bothering me, they ask me about it.” The responses were on a five-point scale ranging from “almost never or never true” to “almost always or always true.” The subscale also maintained excellent reliability for mothers ($\alpha = 0.87$), fathers ($\alpha = 0.88$), and peers ($\alpha = 0.86$).

The alienation subscale consisted of five items with questions such as “I don’t get much attention from my [mother/father/friends],” “my [mother/father/friends] doesn’t understand what I am going through these days,” and “I get upset a lot more than my friends know about.” The responses were on a five-point scale ranging from “almost never or never true” to “almost always or always true.” The subscale maintained fair to strong reliability for mothers ($\alpha = 0.60$), fathers ($\alpha = 0.75$), and peers ($\alpha = 0.70$).

Analysis

To answer the research questions, one-way multivariate analyses of variance (MANOVAs) were conducted to determine the effect of the three cultural groups studied (US, Puerto Rico, and India) on the four dependent variables of attachment (overall, trust, communication, and alienation). Participants’ answered attachment questions for their mother, father, and peers. Thus, to answer the first research
question, a MANOVA examined the four dependent attachment measures among the three groups for peer attachment. For the second research question, two MANOVAs tested the dependent measures among the three groups considering participants’ attachment levels to mothers and fathers. Analyses of variance (ANOVAs) on each dependent variable were conducted as follow-up tests to each significant MANOVA. Finally, pair-wise comparisons for significant ANOVAs were conducted using the Tukey post hoc method.

Results

Attachment to Peers

Research question one examines if adult children from the United States show stronger levels of attachment to their peers than do adult children from Puerto Rico and India. Significant differences existed among the three cultural groups on the dependent measures related to peer attachment, Wilks’s $\Lambda = 0.82$, $F(8, 346) = 4.61$, $p < 0.001$, $\eta^2 = 0.10$. The follow-up ANOVAs for overall peer attachment, $F(2, 176) = 3.88$, $p = 0.02$, $\eta^2 = 0.04$, and the alienation dimension of peer attachment, $F(2, 176) = 3.95$, $p = 0.02$, $\eta^2 = 0.04$, were significant while the ANOVAs for the communication, $F(2, 176) = 2.12$, $p = 0.12$, $\eta^2 = 0.02$, and trust, $F(2, 176) = 1.57$, $p = 0.21$, $\eta^2 = 0.02$, dimensions of peer attachment were not significant.

Post hoc analysis to the univariate ANOVA for overall peer attachment indicated that US participants maintained stronger attachment to their peers ($M = 4.09$, $SD = 0.46$) in comparison to participants from India, $t = 0.24$, $p = 0.022$, $M = 3.85$, $SD = 0.47$. The overall attachment of Puerto Rican participants to their peers ($M = 4.01$, $SD = 0.64$) was not significantly different in comparison to either group. Participants from India reflected significantly more alienation-based attachment to their peers ($M = 2.25$, $SD = 0.69$) in comparison to US participants, $t = 0.32$, $p = 0.022$ $M = 1.93$, $SD = 0.63$. The alienation-based attachment of Puerto Rican participants to their peers ($M = 2.01$, $SD = 0.75$) was not significantly different in comparison to either group.

The second research question examines if adult children from Puerto Rico and India show stronger levels of attachment to their mothers and fathers than do adult children from the United States. Significant differences existed among the three cultural groups on the dependent measures related to both attachment to mothers, Wilks’s $\Lambda = 0.80$, $F(8, 320) = 4.70$, $p < 0.001$, $\eta^2 = 0.11$, and attachment to fathers, Wilks’s $\Lambda = 0.81$, $F(8, 324) = 4.52$, $p < 0.001$, $\eta^2 = 0.10$.

Attachment to Mothers

The follow-up ANOVAs for overall attachment to mothers, $F(2, 163) = 7.02$, $p = 0.001$, $\eta^2 = 0.08$, and the trust, $F(2, 163) = 15.47$, $p < 0.001$, $\eta^2 = 0.16$, communication, $F(2, 163) = 10.02$, $p < 0.001$, $\eta^2 = 0.11$, and alienation,
dimensions of attachment to mothers were each significant. Post hoc analysis to the univariate ANOVAs for attachment to mothers found Puerto Rican participants reflected a significantly weaker overall attachment to their mothers (M = 3.63, SD = 0.50) in comparison to both US participants, t = 0.25, p = 0.004, M = 3.88, SD = 0.31, and participants from India, t = 0.25, p = 0.001, M = 3.88, SD = 0.28. Puerto Rican participants similarly reflected significantly less trust-based attachment to their mothers (M = 3.81, SD = 0.83) in comparison to both US participants, t = 0.49, p = 0.000, M = 4.3, SD = 0.57, and participants from India, t = 0.62, p = 0.000, M = 4.44, SD = 0.36. Puerto Rican participants maintained significantly less communication-based attachment to their mothers (M = 3.37, SD = 0.85) in comparison to both US participants, t = 0.48, p = 0.011, M = 3.85, SD = 0.74, and participants from India, t = 0.64, p = 0.000, M = 4.01, SD = 0.70. Puerto Rican participants had significantly more alienation-based attachment to their mothers (M = 2.51, SD = 0.81) in comparison to both US participants, t = 0.35, p = 0.033, M = 2.16, SD = 0.64, and participants from India, t = 0.56, p = 0.000, M = 1.95, SD = 0.53.

Attachment to Fathers

The follow-up ANOVAs for overall attachment to fathers, F(2, 165) = 5.49, p = 0.005, \( \eta^2 = 0.06 \), and the trust, F(2, 165) = 8.21, p < 0.001, \( \eta^2 = 0.09 \), communication, F(2, 165) = 11.14, p < 0.001, \( \eta^2 = 0.16 \), and alienation, F(2, 165) = 7.24, p = 0.001, \( \eta^2 = 0.08 \), dimensions of attachment to fathers were each significant. Post-hoc analysis to the univariate ANOVAs for attachment to fathers found that participants from India reflected a significantly stronger attachment to their fathers (M = 3.82, SD = 0.40) in comparison to Puerto Rican participants, t = 0.28, p = 0.011, M = 3.55, SD = 0.56. The overall attachment of US participants to their fathers (M = 3.72, SD = 0.48) was not significantly different in comparison to either group. Participants from India (M = 3.97, SD = 0.47) reflected a significantly stronger trust-based attachment to their fathers in comparison to both US participants, t = 0.33, p = 0.003, M = 3.63, SD = 0.67, and Puerto Rican participants, t = 0.31, p = 0.032, M = 3.66, SD = 0.68. Participants from India (M = 3.87, SD = 0.65) reflected significantly greater communication-based attachment to their fathers in comparison to both US participants, t = 0.84, p = 0.000, M = 3.02, SD = 1.05. Participants from India reflected significantly less alienation-based attachment to their fathers (M = 2.03, SD = 0.70) in comparison to both US participants, t = -0.38, p = 0.029, M = 2.42, SD = 1.0, and Puerto Rican participants, t = -0.49, p = 0.017, M = 2.53, SD = 0.98.

Discussion

This investigation suggests that attachment theory may not be culturally universal. The development of attachment theory is rooted in Western values. In this study, college students revealed different attachment patterns based on different
countries of origin. These differences may be linked to cultural divergence (collectivism vs. individualism), but they are also related to other cultural variables and perhaps individual differences among the participants.

Participants from Puerto Rico demonstrated less attachment to their mothers than did the United States and India participants. The Puerto Rico participants may well share some sense of machismo, which is a description of a man originating in Spanish. Macho, or manly, varies from being seen as virile to being more extremely masculine. Conservative gender roles mark macho cultures and sometimes these views are extended to the superiority of men over women. In such a culture, attachment to one’s mother (for women or men) may be viewed as less desirable.

The prevalence of Catholicism adds texture to this explanation. Catholics revere women in the form of Madonna. Conservative Catholics believe that women should not be in positions of leadership over adult men. For a young person (particularly a male) to reveal strong attachment to a mother may be counter to both the Machismo culture and the teachings of the Church.

Participants from India were more strongly attached to their fathers than were participants from Puerto Rico or the United States. The Indian people retain strong allegiances to the caste system and to arranged marriages. They tend to be patriarchal as the father (sometimes with consultation with the mother) chooses spouses for the children. The father is seen as the head of the family and it is not surprising that college-aged students report closer attachments to the father than do people from the other two cultures. The Hindu religion and the Muslim religion, which predominate in India, both have strong masculinist leanings. Women’s and men’s roles are decidedly different. In addition, the participants from India were relatively youthful compared to the participants in the two other countries.

Participants from the United States were more attached to their peers than were the Indian participants. Similarly, the Indian participants reported more alienation to their peers compared with their United States counterparts. The United States is more individualistic and therefore college students may identify with (and be more attached to) their peers than are people from collectivistic cultures. Individualistic cultures are more likely to favor relationships with peers over relationships with family members.

The college experience may be particularly salient for changes in attachment among students in the United States. The greater individualism may encourage a transitional period from the family to peers. Peers may be a more attractive source for advice and support than family. Whereas in India perhaps due to the collectivistic nature there is more turning inward and seeking familial support and consequently the peers in comparison as a group to the United States end up getting more alienated.

In addition, the predominant religion in the upper Midwest is Protestant Christian, more precisely, Lutheran. While the Lutheran Church originated in the Catholic Church, it is far more liberal in prescribing relatively equal roles between women and men. With peers, more overall attachment in the United States sample to peers in comparison to participants from India.
While the differences found may be linked to cultural divergence (collectivism vs. individualism), other cultural variables are at play. For example, only 6% of the US students lived at home compared to 66.7% of the Puerto Rican students and 51% of the India cohort. It may well be that the US students’ context (away from home rather than at home) may explain why the US students had stronger peer attachment. Alternatively, the cultural differences (individualistic vs. collectivistic) might account for both the peer attachment differences as well as their choice to live outside of their parents’ home.

**Limitations**

This investigation used the constructs of individualism–collectivism to choose sites for the study. The study did not measure differences, or relationships among the constructs and generalizations are thus very limited. The results do indicate that people in different cultures perceive attachments with parents and peers differently, but they do not show a definitive relationship to individualism and collectivism. Indeed, the participants from two collectivistic cultures responded differently to the measure. Clearly, within-culture variability may have affected the findings.

This study suffers from a number of other limitations, as well. First, the samples from each country are relatively small. Second, the samples are not identical in biological sex composition, or in age composition. Huiberts et al. (2006) demonstrated that both age and biological sex interacted with measured of connectedness with parents among Dutch and Moroccan adolescents.

Only two collectivistic cultures were used to contrast with only one individualistic culture. The study would be strengthened with additional examples of each. At the same time, cultural agents are essential to collecting information about people in other countries and sometimes contacts with local people are difficult to arrange.

Third, the study relied on self-report data. While participants reported their levels of attachment to parents and peers, they do not necessarily enact them. In addition, this methodological choice may be flawed because participants had different experiences with language, with privacy issues, and with these methods of collecting data. Interpretations of different terms and constructs may result in misunderstanding.

Participants in both Puerto Rico and India could have possibly completed the survey in a variety of languages beyond English. While English was a developed language among all sample participants, participants might not have been able to comprehend all the nuances of words in the English language. If the survey was available in a variety of languages and completed in the language most comfortable to each participant, results might have been different. In addition, Child et al. (2006) found that the method of collecting data significantly influenced the results of their study on family problems. Although the nature of this investigation is not so delicate, the written survey format could hold problems for people in other cultures.
Future Research

Cross-cultural comparison of communication constructs is essential to our understanding of a variety of communication contexts. At the same time, such studies are thorny because of potential language and methodological misunderstandings. A complete picture of family and interpersonal communication is not achievable without understanding the views of those in other cultures.

What is “normal” family communication in other parts of the world? In terms of this study, is parental and peer attachment central to healthy development, self-esteem, self-image, social competence, and relationships with others? Do these same constructs relate to each other in the same or distinctive ways from the United States?

How can multiple methods reveal conclusions about interpersonal communication constructs? Will focus groups, interviews, and other strategies be more appropriate to reveal essential relationships? What can we learn about healthy and unwholesome relational trajectories by alternative research approaches?

Research on attachment theory might be studied in multiple countries and at various stages of development. College students are often a convenience sample, but investigations of interactions between parents and their babies and small children may yield important information. Learning about cultures that share some sets of similarities might be contrasted with those that are idiosyncratic on other characteristics. The large scope of such comparisons makes such work unfeasible, but vital if we are to understand families and interpersonal relationships around the globe.

Finally, we must ask whether individualism and collectivism are overrated constructs. Has their usefulness for understanding intercultural communication become outmoded with enormous changes in electronic communication, increased international travel, and multinational corporations. Are world changes so significant that we soon experience homogeneity rather than heterogeneity in the experiences of the world-citizen? This study demonstrated differences in the perception of college students from different cultures, but would the findings be replicated among older and more traveled individuals? Intercultural scholars are provided with a rich and dynamic milieu in which to understand perceived and actual communication behaviors.

Note

[1] Because the samples varied in age and biological sex composition, follow-up tests were conducted to be sure that the differences in the three groups were not due to age or biological sex differences. No significant differences occurred for biological sex on the three overall measures, $t(163) = -0.48, p = 0.63$; no significant differences occurred on the dimension of age for attachment to mother (Pearson’s $r = -0.129, p = 0.10$) or attachment to peers (Pearson’s $r = 0.083, p = 0.28$); a small inverse relationship occurred on the attachment to father by age (Pearson’s $r = -0.203, p = 0.01$; older people are less attached to their fathers; or, conversely, younger people are more attached).
References


