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Interdependence as a Mediator between Culture and Interpersonal Closeness
for Euro-Canadians and Turks

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In Press, *Journal of Cross-Cultural Psychology*

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Abstract

The present study examines cross-cultural differences in interpersonal closeness to different people and whether these differences can be explained by independent and interdependent self-construal. Turkish and Euro-Canadian samples of university students were asked to indicate how close they feel and how close they ideally would like to be to family members, romantic partners, friends and acquaintances. As predicted, Turkish participants scored higher on interdependent self-construal, whereas there was no culture difference on independent self-construal scores. Turkish participants rated their actual and ideal closeness with others higher than Euro-Canadian participants did. Both Turkish and Euro-Canadian participants reported feeling closest and ideally wanting to be closest to their romantic partner, and then to their families and friends, followed by acquaintances. Turkish participants desired more closeness with family members and acquaintances than Euro-Canadian participants did. Interdependent self-construal was found to partially mediate the relationships between culture and actual closeness scores for family, friends and acquaintances, and between culture and ideal scores for family and acquaintances.

Interdependence as a Mediator between Culture and Interpersonal Closeness
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Culture plays a substantial role in how we experience our relationships (e.g. Dion & Dion, 1993) and the mechanisms through which it does so have been a topic of considerable interest to psychologists. One cultural characteristic that is assumed to have an impact on relationship cognition is individualism-collectivism. The dimension of individualism-collectivism refers to the relative priority given to personal goals as opposed to group goals. Individualist societies are those in which there is an emphasis on individual rights, and where the goals of groups or collectives are subordinate to the goals of the individual. In collectivist societies, there is a greater emphasis placed on others than on the self, which leads to an emphasis on harmony and conformity and on subordination of one's own goals to the goals of the collective (Hofstede, 1980; Triandis, Bontempo & Villareal, 1988; Triandis, McCusker & Hui, 1990). These differences can be observed in people's orientation towards romantic love. In individualistic societies, romantic love can provide a chance for exploring and revealing dimensions of oneself (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985). Similarly, a relation between aspects of romantic love such as idealization of the lover for her or his unique qualities and individuation of the self was also suggested by Averill (1985). In collectivistic societies, however, the most important bond for an individual is likely to be with one's family even after one gets married (e.g., Ho, 1975; Hsu, 1981).

Cultural-level individualism and collectivism are assumed to have a parallel in individual-level differences (Markus & Kitayama, 1991). Specifically, individuals may differ in terms of their self-representations in ways that parallel the individualist-collectivist dimension. A person who has an independent self-construal is one whose self-representation emphasizes

separateness from others, internal attributes, and uniqueness. A person with an interdependent orientation is one whose self-representation stresses connectedness, social context, and relationships. It is assumed that people from individualist cultures typically endorse more independent self-construals and that those from collectivist cultures typically endorse more interdependent self-construals (e.g. Markus & Kitayama, 1991; Triandis, 1995). It is further assumed that many of the behavioural and psychological differences observed between individualist and collectivist cultures can be attributed to the influence of these cultural values on people's individual self-representations. In other words, it is often presumed that the cultural differences attributed to the individualism-collectivism dimension are accounted for, or mediated by, individual differences along the dimension of independent-interdependent self-construals. Interestingly enough, direct measures of this dimension have rarely been used to account for observed cultural differences (Lalonde, Hynie, Pannu, & Tatla, 2002). The present study focuses on whether cultural differences in interpersonal closeness can be explained by the independent and interdependent self-construals.

Inclusion of Other in Self

One concept that seems particularly relevant to the cultural-level dimension of individualism-collectivism, and the individual-level dimension of independence-interdependence, is the idea of the inclusion of other in the self. According to Aron, Aron, Tudor and Nelson (1991), intimacy or closeness in a relationship is experienced and cognitively represented as an overlap between one's self-representation and the representation of one's relationship partner. Aron and his colleagues (Aron, Aron & Smollan, 1992) argue that in close relationships individuals behave as if characteristics of their partner are actually their own. Thus,

the closer one feels to one's partner, the more one feels that they are incorporated into one's self-representations, and the more the couple feels like a single unit.

In a series of studies, Aron and his colleagues (Aron, et al., 1991; Aron, et al., 1992) showed that the cognitive consequences of having a close relationship with another person were consistent with treating the other as an extension of the self. In these studies, North American undergraduates showed memory and resource allocation effects for close significant others that were similar to the effects typically found for the self. Moreover, participants made more errors and took longer in deciding whether traits that they did not share with their spouse were true for themselves than when making these decisions about traits they did share with their spouse. Aron and his colleagues interpreted these results as evidence that their participants had difficulty distinguishing their representation of themselves from their representations of their close others. Other researchers have also used the concept of the inclusion of other in the self in describing dyadic relationships such as romantic relationships and self-best friend relationships (e.g. Agnew, Van Lange, Rusbult, & Langston, 1998; Lin & Rusbult, 1995).

Thus, the phenomenon of inclusion of other in self is interesting in a cross-cultural context because the dimension of individualism-collectivism at the cultural level, and independent-interdependent self-construals at the individual level, expressly predict the extent to which people should experience an overlap of their self-representation with that of close others. Cross-cultural research on self-representations suggests that people from collectivist cultures define themselves in terms of their relationships and feel connected to ingroup members (e.g. Triandis, 1995; Triandis, McCusker, & Hui, 1990). Thus, they should be more interdependent and report higher inclusion of other in self with ingroup members than do people from individualistic cultures. In contrast, people from individualist cultures are hypothesized to

perceive themselves as unique and to be less influenced by social context. Thus, they should report more independence and less inclusion of other in self with ingroup members.

However, this pattern may not be consistent across all close relationships because different cultures have different norms for close relationships and may define the ingroup in different ways. Recently, Uleman and his colleagues (Uleman, Rhee, Bardoliwalla, Semin, & Toyama, 2000) noted that prior research on individualism and collectivism has shown that people include others in the self to varying degrees and ways depending on who this 'other' is (e.g. Rhee, Uleman, & Lee, 1996). They therefore modified the inclusion of other in self measure to assess differences within and across five cultures (Asian American, Dutch, Euro-American, Japanese, and Turkish) on six types of closeness (general, emotional, supportive, identity, reputation, similarity, and harmony) for three different target groups (family, relatives and friends). Although they found that the amount of closeness to others depended on culture, type of ingroup, and closeness type, with the respondents from the individualist cultures (Dutch and Euro-American) forming a tighter cluster in terms of similarity of responses than those from the collectivist cultures, certain patterns did emerge. Across all five cultures, Uleman and his colleagues found that general closeness, as measured by the IOS, was most strongly related to emotional and supportive closeness. Furthermore, participants generally reported being closer to their family than to their friends, and closer to both of those groups than to their relatives.

Similarly, Li (2002) used a modified IOS scale to compare male and female university students from Mainland China and from Canada on four ingroups: close family, closest family member, close friends and closest friend. Li found that Chinese respondents reported more closeness to family members and marginally more closeness with close friends than did Canadians, but that there was no cultural difference on closeness with closest friend. Li also

found a gender by culture interaction on closeness to friends, such that Canadian women reported more closeness to their friends than did Canadian men, whereas Chinese women reported less closeness to their friends than did Chinese men.

Thus, culture does seem to influence perceived closeness to others, with people from collectivist cultures reporting more closeness to their family members than individuals from more collectivist cultures. However, the amount of closeness felt for friends is also reported to be very high, and may not differ between cultures. Moreover, these studies did not compare closeness with family and friends to closeness experienced with romantic partners. Individualist cultures place a greater emphasis on intimacy with one's romantic partner than do more collectivist cultures (Goodwin, 1995; Ting-Toomey, 1991). Thus, the pattern observed with family and friends may differ from that observed with romantic partners. Specifically, one might expect that people from collectivist cultures would actually have, or at least desire, less self-other overlap with their romantic partners than do people from individualist cultures. One goal of this study was thus to compare participants from collectivist and individualist cultures on closeness to romantic partners as well as family members and friends.

The Mediating Role of Independent and Interdependent Self-Construal

The constructs of independent and interdependent self-construals are assumed to reflect the extent to which others are included in one's own self-representation. If it is this aspect of culture that influences closeness, then the overlap in self-other representations should be mediated by people's reported independent and interdependent self-construals. However, interdependence is assumed to be a byproduct of societal collectivism, and thus is specific to one's ingroup (cf., Cross, Bacon, & Morris, 2000). Thus, interdependent self-construal should mediate closeness to one's family members, but it is not clear what effect it will have on

romantic partners who, for unmarried young adults, may not be considered a part of one's ingroup. Independent self-construal, however, is about defining oneself as unique from others. Thus, independent self-construal should exert the same effects on both ingroup members and other individuals. Independent self-construal should therefore mediate between culture and people's self-other overlap for all relationships.

Consistent with this hypothesis, previous research on the relationship between psychological independence and interdependence has found that it is self-reported independence that influences one's experience of romantic relationships. Dion and Dion (1991), using Breer and Locke's (1965) measure of individualism and collectivism, found that individualism was negatively related to reported love for one's partner whereas collectivism had no effect. It should be noted, however, that they only obtained this effect for a subset of the independence items, those that reflected self-reliance and freedom. Dion and Dion referred to this as "self-contained individualism." However, these results are consistent with the prediction that psychological individualism, but not collectivism (i.e., interdependence) mediates closeness in romantic relationships. A second goal of the present study was thus to examine the extent to which the experience of closeness is mediated by psychological independent and interdependent self-construal.

The Present Study

Closeness in different relationship types was examined in Canadian and Turkish samples, representing individualistic and collectivistic cultures respectively. This classification is based on Hofstede's (1980) factor analysis of work-related attitudes in over 80 countries, in which Canada ranked 4th and Turkey 28th on the individualism-collectivism dimension. Later studies have also shown that Turkish samples tend to exhibit collectivistic tendencies (Göregenli, 1997;

Imamoğlu, Küller, Imamoğlu, & Küller, 1993), whereas Canadians score high on individualism (see Oyserman, Coon, & Kemmelmeier, 2002 for a review).

We asked participants to rate their closeness with several different family members, close friends and romantic partners. We also measured closeness to acquaintances. Although acquaintances such as neighbors and classmates may be perceived as members of people's ingroups, they are not intimate or close relationship partners. This allowed us to determine whether a main effect of culture was due to greater closeness within close relationships for participants from that culture, or perhaps just to a greater endorsement of closeness overall (i.e., just a response bias).

Furthermore, we considered both actual closeness, the closeness that participants actually feel, and ideal closeness, the closeness that participants ideally want to have with others. While actual closeness to others is limited by external constraints such as the other's desire for intimacy, ideal closeness should be a purer measure of the extent to which people value closeness.

The specific hypotheses tested in this study were as follows:

Hypothesis 1: Turks and Canadians would differ on their closeness to other individuals. Specifically, Turks would score higher on closeness with their family members than Canadians, whereas Canadians would score higher on closeness with their romantic partner. No differences for close friends or acquaintances were expected.

Hypothesis 2: Turks would report higher interdependent self-construal than Canadians, whereas Canadians would report higher independent self-construal than Turks.

Hypothesis 3: Independent self-construal would mediate the relation between culture and the closeness of all relationships, whereas interdependent self-construal would only mediate the relation between culture and closeness with family members.

Method

Participants

Three hundred forty Turkish university students (191 female & 149 male) and 384 Canadian university students (273 female & 111 male) participated in this study. Given the cultural diversity of the Canadian students, the sample was reduced to include only those participants who identified their ethnicity as either of European background or Canadian. This reduced the sample to 214 Canadian students (137 female & 77 male), 52.8% of whom self-identified as European and 47.2% who identified themselves as Canadian. Turkish students primarily identified themselves as Turkish (86%) or as Kurdish (7%). Only participants under the age of 30 were included for analysis thereby further reducing the sample to 182 Euro-Canadians (117 women and 65 men) and 336 Turks (187 women and 149 men). Euro-Canadian participants were significantly older ($M = 22.30$, $SD = 2.46$) than Turkish participants ($M = 20.49$, $SD = 1.91$), $t(516) = 9.28$, $p < .001$. Age was therefore included as a covariate in all analyses.

With regard to relationship status, 144 (42.9%) of the Turkish participants reported that they were in a relationship compared to 103 (57.2%) of the Euro-Canadian participants; this difference was not significant, $\chi^2(1) = 2.08$, *ns*. Of the participants who were in a relationship, significantly more of the Turkish participants ($N = 62$, 42.8%) than Euro-Canadian participants ($N = 22$, 20.8%) described their relationship as being casual, $\chi^2(1) = 8.65$, $p < .01$. Within the sample profiles of the more serious relationships (dating someone seriously, engaged, living

together, or married), dating someone seriously was the most frequently chosen relationship category in both samples, with Euro-Canadians participants reporting the same proportion of relationships in this category ($N = 66, 62.3\%$) as the Turks ($N = 64, 44.1\%$), $\chi^2(1) = 3.21, ns$.

Procedure and Materials

Participants were recruited from several undergraduate classes at a large Canadian university in Toronto and three Turkish universities in Istanbul. A lottery for \$25 (or the equivalent of Turkish Liras) was offered in each data collection session. The questionnaire that participants were given contained demographic questions, the Inclusion of the Other in Self Scale (IOS) (Aron et al., 1992), and the Measure of Independent and Interdependent Self-Construal (Singelis, 1994). The original English version of the questionnaire was translated into Turkish by the first author and then backtranslated into English by a second translator to ensure compatibility and equivalence in meaning (Brislin, 1986).

Demographic information. In addition to their age, sex, and ethnicity, participants were asked to select their relationship status from the list of relationship categories described earlier.

Inclusion of the Other in Self Scale. The IOS was developed by Aron, Aron and Smollan (1992) to measure closeness in relationships. This scale consists of seven Venn diagrams that represent different degrees of overlap between self and the other. The diagrams are designed so that a) the total area of each figure is constant (thus as the overlap of the circles increases, so does the diameter), and b) the degree of overlap progresses linearly, creating a seven-step, interval-level scale. This single-item scale has been shown to have high test-retest (in a two-week period) and alternate reliabilities (compared with an alternate form using diamonds instead of circles) (Aron et al., 1992). Respondents in the current study were asked to select the picture that best described their relationship with the following 12 targets: mother, father, younger sister,

older sister, younger brother, older brother, spouse, partner, closest female friend, closest male friend, classmate and neighbor.

The IOS measures were completed twice. Participants first were asked to rate their *actual* relationships with these people and to then rate their *ideal* relationships with the same people. The two sets of ratings were placed on separate pages. In the actual condition, participants were given the option of checking "not applicable" when they did not have the relationship described. In the ideal condition, participants were instructed to describe how they wished, desired or hoped that particular relationship to be, regardless of whether or not they had a relationship of this kind in their life. For example, they were asked to indicate their desired relationship with an older sister even if they did not have an older sister.

The IOS ratings of the 12 targets were collapsed into 4 categories separately for ideal and actual ratings. Ratings for mother, father, sisters and brothers were collapsed into a *family* score. Ratings for spouse and romantic partner were combined into a *romantic partner* score. Closest female and closest male friend ratings were combined into a *friends* score, and finally, classmate and neighbor composed the *acquaintances* category. Items in each category were strongly correlated with each other. The reliability coefficient for the ideal family category was .90, for the ideal romantic partner category .84, for the ideal friend category .73, and for the ideal acquaintance category .81¹. In the ideal condition, all four relationship categories correlated significantly with each other (correlations ranged between $r=.26$ and $r=.55$). Similarly, in the actual condition, all relationship categories significantly correlated with each other, except the romantic partner category which did not correlate significantly with any other relationship category. Correlations did not differ by culture or gender.

Each relationship type was checked for skewness. We were concerned that participants would rate their ideal relationships as highly as possible on the 7-point scale. Only the scores for ideal romantic partner were found to be significantly skewed. To make meaningful comparisons, however, the scores of all combined groups were log transformed for analysis (Guthrie, 1981).

Independent and Interdependent Self-Construal. These two 12-item scales were developed by Singelis (1994) to measure the extent to which one's self is construed independently and interdependently. A sample item of the independent self-construal scale is, "I act the same way no matter who I am with." A sample item of the interdependent self-construal scale is, "I will sacrifice my self-interest for the benefit of the group I am in". Respondents were asked to indicate their agreement with the items on a 7-point Likert scale (strongly disagree (1) to strongly agree (7)).

The reliability coefficients for both the interdependence and independence subscales were acceptable in each cultural group. The reliability coefficient for the interdependent self-construal scale was $\alpha=.71$ in the Turkish sample and $\alpha=.73$ in the Euro-Canadian sample. For the independent self-construal scale, α was .62 in the Turkish sample and .71 in the Euro-Canadian sample.

We tested the cross-cultural structural equivalence of the self-construal measure by calculating factor congruence coefficients based on factors obtained in an exploratory factor analysis. Three factors were obtained, the first two of which corresponded to interdependent self-construal and independent self-construal respectively. The calculations revealed an identity coefficient of .86 for the new interdependence factor and .80 for the new independence factor. Although these values suggest similarity of the factors across cultures, they don't provide evidence for full congruence in the factor structure. All analyses were conducted with both

original scales and the scales formed using the items that loaded appropriately on either the first (interdependent self-construal) or the second (independent self-construal) factor in both cultures. The results did not change substantially as a function of which scales were used, but reliability coefficients for the new scales were substantially lower than the original scale. We therefore opted to use the original scales to allow comparison of the results in the present paper with those in the literature.

The examination of the individual items did not suggest any response bias on part of either of the cultural groups. This was determined by examining the item means for each cultural group.

Results

Test of the Closeness Hypothesis

Our first hypothesis predicted an interaction of culture and type of relationship on the level of closeness. Turks were expected to report more closeness to family whereas Euro-Canadians were expected to report more closeness with romantic partner. To examine the overlap of self-other representations as a function of culture, gender and relationship type, two ANCOVAs were conducted, one on each type of rating: actual and ideal. Each analysis was a 2 (cultural group: Turkish, Euro-Canadian) X 4 (relationship category: family, romantic partner, friends, acquaintances) X 2 (gender: male, female) mixed design analysis of variance, with age as a covariate. Relationship category was the within subject variable and cultural group and gender were the between subject variables. Greenhouse-Geisser adjustments were applied to degrees of freedom to control for violations of sphericity. Degrees of freedom are reported to the nearest whole number.

Only half of the sample reported being in a romantic relationship and, of the Turkish participants who were in a relationship, half of them described the relationship as casual. In order to control for relationship seriousness, only those participants currently in a serious relationship were included for analyses of actual closeness. However, for ideal relationship closeness, both those in relationships and those currently not in a relationship were retained. Analyses were conducted on the log of the closeness scores but the original nontransformed means for IOS scores by cultural group, type of rating (actual/ideal) and gender are reported in Table 1.

For actual relationships, there was no significant effect of age, $F(1, 150) = 1.54$, *ns*. The results revealed a significant main effect of cultural group, $F(1, 150) = 8.79$, $p = .004$, such that Turkish participants ($M = 4.77$) rated their relationships as closer than did Euro-Canadian participants ($M = 4.26$). There was also a significant main effect of relationship type, $F(3, 379) = 3.53$, $p = .021$. The main effect of relationship type was examined using Tukey's pairwise comparisons. There were significant differences between all relationship pairs (all p s < .001) except family and friends. Romantic partners were rated the highest ($M = 6.01$), followed by friends ($M = 4.76$) and family ($M = 4.62$), and finally by acquaintances ($M = 2.69$). There was no main effect of sex, $F < 1$.

There were no significant interactions between relationship type and cultural group, $F(3, 379) = 1.56$, *ns*, or relationship category and sex, $F < 1$. There was a marginal interaction between cultural group and sex, $F(1, 150) = 2.74$, $p = .10$. Turkish women ($M = 4.73$) and men ($M = 4.82$) tended to report similar levels of closeness whereas among Euro-Canadians, women ($M = 4.42$) tended to report more closeness than did men ($M = 4.10$). However, given the relatively small number of Euro-Canadian men, this result must be interpreted with caution. There was no three-way interaction, $F < 1$.

For the ratings of ideal relationship closeness, age was a significant covariate, $F(1, 462) = 4.10$, $p = .04$. Once again, there was a main effect of culture, $F(1, 462) = 4.66$, $p = .031$, such that Turkish participants ($M = 5.51$) ideally wanted to be closer to others than did Euro-Canadian participants ($M = 5.20$). There was also a main effect of relationship type, $F(3, 1282) = 8.08$, $p < .001$. Pair-wise comparisons revealed that all means differed except ratings of family and friends. Participants ideally desired the most closeness with romantic partners ($M = 6.31$), somewhat less with family ($M = 5.71$) and friends ($M = 5.61$) and the least with acquaintances ($M = 3.78$). There was no main effect of sex, $F < 1$.

These main effects were qualified by two significant interactions. There was a significant interaction between relationship type and cultural group, $F(3, 1282) = 5.86$, $p = .001$, and an interaction between relationship type and sex, $F(3, 1282) = 6.16$, $p = .001$. Both Turkish and Euro-Canadian participants desired more closeness with romantic partners than either friends or family, and desired the least closeness with acquaintances (see Table 1). However, Turkish participants desired more closeness for family members and acquaintances than did Euro-Canadian participants (see Table 2). The two groups did not differ with respect to desired closeness with either romantic partners or friends. With respect to the sex interaction, both women and men showed the same pattern described above. Namely, both sexes wanted the most intimacy with their romantic partners, somewhat less with friends and family, and less still with acquaintances (see Table 1). However, women and men differed in that women desired more intimacy with friends than did men, whereas men desired more intimacy with acquaintances than did women (see Table 3). There was no cultural group by sex interaction, $F < 1$, and no three-way interaction, $F(3, 1282) = 1.69$, ns .

Test of cultural differences on independent and interdependent self-construal

The second hypothesis of this study was that Turks would score lower on independent self-construal and higher on interdependent self-construal than Canadians. To test this hypothesis, and examine the possibility of gender differences in interdependent and independent self-construal scores, an ANCOVA was performed on each variable with cultural group (2: Turkish, Euro-Canadian) by gender (2: male, female) as between subject variables and age as covariate. For independent self-construal scores, age was not a significant covariate, $F(1, 513) = 1.05$, *ns*. There were no main effects for cultural group, $F(1, 513) = 1.51$, *ns*, or gender, $F < 1$, but there was a significant interaction effect, $F(1, 513) = 15.91$, $p < .001$. Post-hoc tests exploring the interaction revealed that Turkish female participants ($M = 5.10$) scored significantly higher on independence than Turkish male participants ($M = 4.82$), $p < .01$, and higher than Canadian female participants ($M = 4.77$), $p < .01$, who did not differ from Canadian males ($M = 5.02$). No other means differed significantly.

For interdependent self-construal scores, age was not a significant covariate, $F(1, 513) = 1.45$, *ns*. There was a main effect for cultural group, $F(1, 513) = 8.21$, $p = .004$, but not for gender, $F < 1$. Turkish participants scored higher ($M = 4.75$) than Euro-Canadian participants ($M = 4.49$) on the interdependence items. The analysis did not reveal any interaction effect between cultural group and sex, $F < 1$.

Independent and interdependent self-construal scales were significantly correlated in the Turkish sample ($r = .19$, $p < .01$), but not significantly related in the Euro-Canadian sample ($r = .07$, $p = .32$). There was no difference in correlations for each gender within cultural groups.

Test of the Mediation Hypothesis

A series of regression analyses were conducted to test the third hypothesis that predicted that independent and interdependent self-construal would mediate the relationship between culture (predictor) and the log of the IOS scores for combined relationship categories (criterion) (Baron & Kenny, 1986). Mediation was not tested for the romantic relationship categories because culture did not significantly predict closeness for either romantic partner actual, $R^2_{adj} = .002$, $F(1, 512) = 1.41$, *ns*, or romantic partner ideal, $R^2_{adj} = .001$, $F(1, 512) = 1.41$, *ns*. Actual romantic closeness was analyzed for only those participants currently in a romantic relationship. All subsequent actual closeness analyses include all participants who reported having the relationships being examined.

Simple regression with cultural group as the independent variable significantly predicted actual closeness with family, $R^2_{adj} = .06$, $F(1, 546) = 39.33$, $p < .001$, friends, $R^2_{adj} = .03$, $F(1, 536) = 16.91$, $p < .001$, and acquaintances, $R^2_{adj} = .09$, $F(1, 537) = 52.44$, $p < .001$. The same pattern of results was found for the relationship between cultural group and ideal closeness for family, $R^2_{adj} = .02$, $F(1, 545) = 12.60$, $p < .001$, friends, $R^2_{adj} = .02$, $F(1, 539) = 12.90$, $p < .001$ and acquaintances, $R^2_{adj} = .07$, $F(1, 535) = 40.70$, $p < .001$ (see Table 4 for correlations).

Culture was not found to predict independence, $R^2_{adj} = .001$, $F(1, 552) = 1.35$, *ns*, and was therefore not tested as a mediator in subsequent analyses. Sobel tests were used to test the significance of the subsequent mediations (Baron & Kenny, 1986; Sobel, 1982). A Sobel test can be used to determine whether the decrease in the new β value after adding the mediating variable into the regression equation is significant. Interdependent self-construal was found to partially mediate the relationships between cultural group and actual IOS scores for family, $Z = 3.33$, $p < .05$, friends, $Z = 2.04$, $p < .05$ and acquaintances, $Z = 2.97$, $p < .05$, and between cultural group

and ideal IOS scores for family, $Z = 3.33$, $p < .05$, and acquaintances, $Z = 2.29$, $p < .05$. The β values representing the original relationship between culture and individual relationship categories and the mediated β' values after interdependence was entered into the regression are shown in Table 5. Thus, the third hypothesis was partially supported in that interdependent self-construal was found to partially mediate the relation between culture and closeness with family, but this effect was not limited to family alone. Rather, interdependent self-construal partially mediated closeness in all actual relationships except for romantic relationships, and closeness in both family and acquaintances for ideal relationships. We should add that although these mediations were significant, the decrease in the β values were rather small.

Discussion

The results will be discussed in terms of cultural differences in closeness to different relationship categories, the interdependent and independent self-construals of the two cultural groups, and the extent to which cultural differences in closeness can be accounted for by levels of independent and interdependent self-construals.

Closeness

We hypothesized that, following the relative importance of romantic partners versus family as a function of individualism and collectivism, Turks and Canadians would differ on their closeness to other individuals. We expected that Turks would score higher on closeness with their family members than Canadians, whereas Canadians would score higher on closeness with their romantic partner. In this study, closeness was examined in relation to different others both in actual and ideal terms.

Actual closeness. Previous studies have shown that level of closeness depends on the type of relationship one has with others and who these others are (Rhee et al., 1996; Uleman et al.,

2000). In this study Turkish participants reported feeling closer to others overall than did Euro-Canadian participants. Contrary to our expectations, this difference was not moderated by relationship type. Previous studies that have examined self-family connectedness between members of individualistic and collectivistic cultures have found greater closeness with family members for individuals from collectivistic cultures (e.g., Dhawan, Roseman, Naidu, & Rettek, 1995; Lay, Fairlie, Jackson, Ricci, Eisenberg, Sato, Teeaeaeer, & Melamud, 1998; Singelis & Sharkley, 1995), but this difference has not been found for other relationships. For example, Li (2002) found no difference between Canadians and Chinese in terms of self-close friend connectedness. The direction of the cultural difference in the degree of closeness to romantic partner is opposite to previous findings that showed that individualistic cultures place greater emphasis on intimacy with one's romantic partner than do more collectivistic cultures (Goodwin, 1995; Ting-Toomey, 1991). This finding may also reflect the extent to which Turkish university students have been influenced by Western values. These influences may not reduce closeness to family, but may increase involvement and intimacy with friends and romantic partner.

This conclusion is further supported by the finding that both Turkish participants and Euro-Canadians reported feeling closer to their romantic partner than anyone else. Both samples were equally close to their families and friends, and least close to acquaintances. That individuals reported the same level of closeness to family and friends suggests the high importance of peers in early adulthood (e.g., Harris, 1998; Parish & Necessary, 1995). These results may not be replicated in a different age group, as people's self concept and relation to friends and family members, and thus the degree of closeness they feel towards different individuals may change over a life course (e.g. Berzonsky, 1990).

A pattern similar to independent and interdependent self-construal scores was observed in actual closeness scores, in that Turkish women did not report higher closeness to others than Turkish men, although Euro-Canadian women did report being closer to others than did Euro-Canadian men. As discussed earlier, women in a traditional culture who choose to pursue higher education may place greater emphasis on achievement and autonomy than on their relationships. Although the difference in closeness between Euro-Canadian men and women lends some support to Cross and Madson's (1997) assertion that men in Western cultures are less relational than are women, it was marginally supported and needs to be examined further in future research.

There was no interaction between relationship type and sex in this study. Thus, our findings do not provide support for previous findings showing that men feel more connected with friends than do women (Kashima, Yamaguchi, Kim, Choi, Gelfand, & Yuki, 1995; Li, 2002). However, this effect may also have been diluted by the characteristics of the Turkish female sample.

Ideal closeness. Turkish participants ideally wanted to be closer to others than did Euro-Canadian participants, and both Turkish and Euro-Canadians participants reported ideally wanting to be closest to their romantic partner, and then to their families and friends and least close to their acquaintances. In contrast to actual closeness however, Turkish and Euro-Canadian participants did differ in how much closeness they ideally wanted with various others. Although they did not report feeling closer to these two groups in actual terms, ideally the Turkish sample wanted to be closer to their families and acquaintances than did the Euro-Canadian sample. The two cultural groups did not differ in terms of how close they ideally wanted to be to friends and romantic partner. Thus, our expectation that Turks would score higher on closeness with family

members received support only when Turkish participants thought about their closeness to family members in ideal terms. Given that the Turkish sample did not report higher actual closeness to their family than the Euro-Canadian sample, the ideal closeness ratings might reflect the cultural expectation that one should be close to family members or that Turks value closeness to family even though this ideal may not be actualized in real life. The same cultural expectation or values related to closeness might be true in terms of having higher closeness with acquaintances. In Turkey, for older generations or in less urban centers, relationships with acquaintances, usually neighbors, tend to be closer. In big cities, young people's lives tend to become increasingly structured only around the core family and selected friends. Thus, the ideal closeness to those groups might be a reflection of what is idealized and valued in the society. In contrast, actual closeness to family and acquaintances may reflect practical limits the environment places on one's relationships.

Independent - Interdependent Self-Construal

As predicted by the second hypothesis, Turkish participants scored higher than Euro-Canadian participants did on interdependent self-construal. The findings did not support the second part of our second hypothesis however, namely that Canadians would score higher on independent self-construal. The two cultural groups did not differ on independent self-construal. There was another unexpected finding with regard to independent self-construal. Turkish women scored higher on independent self-construal than both Canadian men and women, and Turkish men. These two unexpected findings contradict previous research that has shown that people from individualistic cultures score higher on independent self-construal than people in collectivistic cultures (e.g. Kim, Hunter, Miyahara, & Horvath, 1996; Oetzel, 1998; Singelis &

Brown, 1995; Singelis & Sharkey, 1995) and men have stronger independent self-construal than women (Cross & Madson, 1997).

The lack of cultural difference in the independent self-construal scores may be explained by several factors. One factor may be the characteristics of the Turkish culture. Previous research conducted with Turkish samples has shown that Turkish culture cannot be placed on one or the other side of the individualism-collectivism dichotomy, at least not in terms of all dimensions of social behavior and all target groups (e.g. Göregenli, 1997; Uleman, et al., 2000). Models of individualism and collectivism applied in the Turkish culture also assert that Turkish people's social cognition and behavior is not guided by pure individualism or pure collectivism (Göregenli, 1995; Kağıtçıbaşı, 1994, 1996). The results of the present study might reflect this characteristic of Turkish culture, that Turkish people seem to hold both independent and interdependent elements in their self-construal. Further evidence for this was recently found in a cross-cultural study by Kurt (2002) who reported a significant positive association between independent and interdependent self-construal scores of a Turkish sample, whereas such an association was absent in her Euro-Canadian sample, a finding replicated in the present study.

A second possible explanation for the lack of a cultural difference in independent self-construal may lie in the way this construct is measured. As has been shown by Peng, Nisbett, and Wong (1997) and Heine, Lehman, Peng, and Greenholtz (2002), real cultural differences in psychological constructs such as values, attitudes, or traits may be concealed when assessed with subjective Likert scales as opposed to assessment with more objective measures. Heine and his colleagues (2002) have shown that this is due to a reference effect, which occurs when people from different cultural groups evaluate themselves on subjective likert scales by comparing themselves to different reference groups. Thus, in our study, Turkish participants may have

compared themselves with other members of Turkish society and come to the conclusion that they have a high independent self compared to others, which, in turn, may have resulted in relatively high independent self-construal ratings, ratings that were similar to those of Canadian participants. Similarly, Canadian participants may have compared themselves to the members of their society and responded to the items evaluating the implicit norms in their culture.

It should also be added that the self-construal scale used in this study did not have full cross-cultural structural equivalence. The results reported here should therefore be interpreted with caution. Nonetheless, this scale has been widely used in cross-cultural research; better scales have yet to be adopted (Heine et al., 2002).

A third explanation for the lack of a cultural difference in independent self-construal scores may lie in the specific characteristics of the Turkish sample. The Turkish sample consisted of university students in a large urban centre of Turkey. An independent self-construal may be necessary for surviving in a competitive educational environment and living in an urban centre that is open to influences from the West. Turks' stronger interdependent self-construal suggests that although the environment might reinforce independent features of one's self, it doesn't lead to disappearance of interdependent features of the self. This finding is consistent with Kağıtçıbaşı's (1996) model of relational interdependence in which she proposes a third alternative to the existing self-construal types which combines independence and interdependence.

The other interesting finding that is worth noting relates to higher independent self-construal scores of Turkish women compared to Turkish men. In the Euro-Canadian sample, no difference between men and women was observed. Although the gender difference in the Turkish sample seems to contradict common expectations with regard to gender differences in

self-construal, it is consistent with previous literature. It has been shown that women with higher levels of education tend to show relatively high levels of autonomy and independence in their attitudes, values, and self-descriptions (Başaran, 1992; Çileli, 2000; Imamoğlu & Karakitapoğlu-Aygün, 1999; Karakitapoğlu-Aygün, 2002; Karakitapoğlu-Aygün & Imamoğlu, 2002; Kurt, 2002). Another potential explanation for the observed gender differences in the Turkish sample may be the abovementioned reference effect. Women and men can be conceptualized as being members of separate cultural groups. Turkish women may have compared themselves to other women in the Turkish society and have come to the conclusion that they have a higher independent self than other Turkish women. This comparison may have resulted in higher scores by Turkish women than Turkish men on the independent self-construal scale. It would be useful to examine gender differences in self-construal using scales in future studies that are better suited for this purpose (e.g. Relational Self-Construal Scale by Cross, Bacon, & Morris, 2000).

These results also suggest that the differences in independence and interdependence at the gender level may not be in line with differences across cultures. Other studies have also shown that gender differences in independence and interdependence have been inconsistent across different studies and seem not to mirror the difference at the cultural level (e.g. Li, 2002). Paying attention to the effects of demographic characteristics on self-construal may be one way of understanding these inconsistencies.

Independent and interdependent self-construals as mediators explaining cultural differences in closeness

Finally, this study examined the extent to which independent and interdependent self-construals mediate the relationship between culture and closeness to different groups of individuals. Both independent and interdependent self-construals were expected to mediate this

relationship, but in different directions and for different relationships. Interdependent self-construal was hypothesized to mediate the relationship between culture and closeness with family, whereas independent self-construal was expected to mediate closeness to romantic partner. Only interdependence was found to mediate between culture and any relationship and then only partially mediate the relationship between culture and closeness for actual closeness with family, friends and acquaintances, and ideal closeness with family and acquaintances. Thus, interdependent self-construal mediated the relationship between culture and closeness for more than just family, but did not mediate for romantic relationships.

In contrast, independent self-construal did not mediate culture and closeness of relationships because it did not differ by culture. Thus, it could not account for cultural differences in relationship closeness. As discussed earlier, this may be because of the characteristics of the Turkish sample. However, the lack of mediation by independent self-construal may also have been due to the way it was measured in this study. A close examination of the independence items in Singelis' (1994) measure reveals that they best capture the level of autonomy and assertiveness of the person rather than the way in which people define their self-construct. In fact, past research that has found a relationship between independent self-construal and importance of romantic love has relied on a different measure of independence (Dion & Dion, 1991).

The findings have shown that, even for relationships where interdependence was expected to mediate the relationship between culture and closeness, this relationship was only partially accounted for by interdependent self-construal. This raises some important questions about these constructs. In cross-cultural literature, independent self-construal and interdependent self-construal have often been promoted as the major constructs for explaining cultural

differences at the individual level. Rarely, however, have these assumptions been tested. Are these constructs indeed responsible for cultural differences in psychological phenomena? Mediation analysis can be one way of addressing this question. Our findings suggest that independent and interdependent self-construals may not be enough to capture the complexity of cultural differences. Rather they suggest the need to consider additional constructs to capture these cultural differences. For example, Lalonde and his colleagues (2002) showed that family connectedness was a stronger mediator between culture and preference for traditional mate attributes than was interdependent self-construal.

Part of the problem may be that the interdependence items in Singelis' (1994) scale may refer more to people's relationship with groups than with individuals. In the current study, participants were asked to describe how much closeness they experience in the relationships with other *individuals*. Level of closeness with individuals may be better explained by measuring interrelatedness, as measured by the Relational-Interdependent Self-Construal Scale by Cross, Bacon and Morris (2000). The Relational, Individual and Collective Self-Aspects Scale that has been recently developed by Kashima and Hardie (2000) may also be a better measure to account for cultural differences in closeness with individuals. Thus, cultural differences in closeness may have more to do with cultural expectations regarding intimate relationships than ingroup relatedness.

Conclusion

In conclusion, this study contributed to the field in the following ways. First, it showed that Euro-Canadians did not score higher in closeness with their romantic partners than Turks, a finding that is inconsistent with previous literature. Second, this study examined actual and ideal closeness for different relationships across cultures. To date, studies have often asked only about

actual closeness. Ideal closeness may be a better measure of cultural values and ideals than actual closeness which also reflects environmental and situational constraints. Third, it showed once again that a sample drawn from an individualistic culture is not necessarily more independent than a sample drawn from a relatively collectivistic culture (e.g. Kagitcibasi, 1994; Oyserman et al, 2002). In most cross-cultural psychology studies, samples drawn from different cultures are assumed to be either independent or interdependent in their orientations without using measures to support this assumption. The findings in this study highlight the need to include relevant measures to support this assumption (Betancourt & López, 1993). Fourth, the proposition (Cross & Madson, 1997) that cultural differences in self-construals should be mirrored in differences between men and women was not supported. We suggest that socio-demographic characteristics of women and men recruited in this and other studies may have influenced the findings in self-construal. Fifth, this study is one of the few studies that examine the impact of independent and interdependent self-construal using a mediational analysis and thus brings a statistical approach to understand the extent to which these constructs explain cultural differences in a psychological phenomenon. Finally, this study contributes to the scarce number of studies that recruited Turkish samples in cross-cultural research. Having cross-cultural data from different parts of the world will add to our knowledge of these different cultures and expand our understanding of psychological consequences of their differences and similarities.

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Footnotes

¹ The reliability coefficients for the actual relationship categories were not computed because of few ratings for some of the relationship categories (e.g. older sister).

Table 1

Mean Ratings for Closeness Scores (non-transformed) by Cultural Group, Type of Rating(Actual/Ideal) and Sex

Relationship Category	Actual				Ideal			
	Turk		EuroCan		Turk		EuroCan	
	Female N=49	Male N=28	Female N=62	Male N=21	Female N=185	Male N=145	Female N=117	Male N=64
Family	4.87 (1.37)	4.90 (1.16)	4.71 (1.12)	3.99 (1.39)	5.87 (0.89)	5.89 (0.94)	5.73 (1.05)	5.35 (1.28)
Romantic Partner	6.05 (1.01)	6.25 (1.22)	6.01 (1.37)	5.73 (1.31)	6.31 (0.92)	6.26 (1.03)	6.41 (1.20)	6.27 (1.27)
Friends	4.87 (1.18)	4.77 (1.32)	4.74 (1.28)	4.65 (1.29)	5.86 (0.95)	5.57 (1.08)	5.66 (1.03)	5.33 (1.28)
Acquaintances	3.13 (1.17)	3.37 (1.44)	2.23 (1.25)	2.02 (1.07)	4.03 (1.33)	4.29 (1.22)	3.22 (1.40)	3.59 (1.74)

The numbers in parentheses stand for standard deviation scores.

Table 2

Mean Ratings of Ideal Closeness (non-transformed) as a Function of Cultural Group and Type of Relationship

Cultural Group	Family	Partner	Friends	Acquaintances
Turkish	5.88 (0.91)	6.29 (0.97)	5.72 (1.01)	4.16 (1.29)
Euro-Canadian	5.54 (1.11)	6.34 (1.22)	5.50 (1.09)	3.40 (1.47)
Mean	5.71 (0.98)	6.31 (1.05)	5.61 (1.04)	3.78 (1.41)

Table 3

Mean Ratings of Ideal Closeness (non-transformed) as a Function of Sex of Participant and Type of Relationship

Sex	Family	Partner	Friends	Acquaintances
Female	5.80 (0.95)	6.36 (1.04)	5.76 (0.98)	3.63 (1.42)
Male	5.62 (1.04)	6.27 (1.07)	5.45 (1.13)	3.94 (1.33)

Table 4

Correlations between Independence, Interdependence and IOS Scores

	<u>Turkish</u>		<u>EuroCanadian</u>		<u>Overall</u>	
	<u>Interdep</u>	<u>Indep</u>	<u>Interdep</u>	<u>Indep</u>	<u>Interdep</u>	<u>Indep</u>
<u>Actual</u>						
Family	.32**	.16**	.23**	.20**	.31**	.19**
Rom. Partner	.18**	.04	.09	.05	.13*	.01
Friends	.07	.23**	.13	.20**	.12**	.23**
Acquaintances	.17**	.10	.13	.19*	.18**	.15**
<u>Ideal</u>						
Family	.22**	.08	.28**	.22*	.26**	.14**
Rom. Partner	.15**	.13*	.08	.06	.12*	.10*
Friends	.02	.09	.10*	.26**	.06	.16*
Acquaintances	.12*	.02	.25**	.18*	.20**	.10*
<u>Independent SC</u>	.19**		.07		.16**	

* p < .05

**p < .01

Table 5

Mediating Effects for Interdependence on the Relationship between Culture andIOS Measures by Relationship Category

IOS Scores	β	β'	Z
Actual			
Family	.26***	.21***	3.33*
Friends	.18***	.16***	2.04*
Acquaintances	.30***	.27***	2.97*
Ideal			
Family	.15**	.10*	3.33*
Acquaintances	.27***	.24***	2.29*

β' represents mediated β values

* $p < .05$,

** $p < .01$,

*** $p < .001$