Religiosity, Values, and Horizontal and Vertical Individualism-Collectivism: A Study of Turkey, the United States, and the Philippines

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Religiosity, Values, and Horizontal and Vertical Individualism—Collectivism: A Study of Turkey, the United States, and the Philippines

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ABSTRACT. The authors examined the links between two dimensions that have been useful in understanding cross-cultural differences and similarities, namely, individualism–collectivism (I–C) and value orientations. The authors examined the relations and parallels between the two variables by directly relating them and examining the patterns of relations that both have with a third variable, religiosity. Participants were 475 college students from the Philippines, the United States, and Turkey who responded to measures of horizontal and vertical I–C, value orientations, and religiosity. The authors found partial support for the parallels between I–C and value types, particularly for collectivism and conservative values. Moreover, religiosity was associated positively with conservative values and collectivism, across all three cultures. The authors found individualism to also relate to openness-to-change values, though the patterns were not as consistent as those that they found between collectivism and conservation. Differences and similarities emerged in links of I–C–values to religiosity across the three samples.

Key words: collectivism, individualism, religiosity

ONE OF THE MOST IMPORTANT ADVANCES in research in cross-cultural psychology has been the empirical identification of dimensions on which cultural groups vary. After much scholarly debate, individualism–collectivism (I–C) has emerged as one of the most important constructs to depict cultural differences and similarities and has been the focus of much cross-cultural research. Nonetheless, debate continues regarding what actually constitutes I–C and how best to assess it (for review, see Kagitcibasi, 1997; Oyserman, Coon, & Kemmelmeier,
2002; Schwartz, 1994; Triandis, 1994). For example, there has been little consensus regarding the definition of I–C, leading to a lack of convergence in both its operationalization and its measurement (Oyserman et al.). The underlying sociocultural factors or convergent validity of “similar” measures of I–C across cultural groups has been generally neglected and left open to theoretical speculation and post hoc interpretations.

Furthermore, some researchers (e.g., Kagitcibasi, 1997; Kim, 1994; Leung & Brown, 1995; Oyserman et al., 2002; Peng, Nisbett, & Wong, 1997) have suggested a need to take a closer look at various aspects of I–C not only between cultures but also within cultures. In contrast, most of the studies on I–C have been aimed primarily at examining cross-cultural (mean) differences between societies on the individualism–collectivism dimension. This tendency to either (a) simply categorize countries as either individualist or collectivist or (b) to just give a priori categorization to cultural groups fails to show the possible underlying factors that might account for group differences.

In the present study, we examined the constructs of I–C, values, and religiosity in three countries: Turkey, the United States, and the Philippines. The examination of the links between I–C and values, as well as the interrelations of I–C with a third variable, religiosity, both between and within cultures, might help investigators to better explain how the I–C construct contributes to or captures similarities and differences across cultural groups, as well as how together, these three constructs (those of I–C, values, and religiosity) might help in conceptualizing cross-cultural differences and similarities.

**Horizontal and Vertical I–C and Values**

Singelis, Triandis, Bhawuk, and Gelfand (1995) and Triandis (1995) have distinguished two major dimensions of I–C at the individual level, namely the vertical and horizontal components. The vertical dimension can be characterized by a sense of service and sacrifice for the in-group, a primary emphasis on doing one’s duty, and an acceptance of the benefits of inequality and rank (Triandis, 1995). The horizontal dimension includes a sense of social cohesion and oneness with members of the in-group and a valuation of similarity on most attributes across individuals, especially on status. Thus, both vertical collectivists and horizontal collectivists tend to perceive themselves as part of a group, but the former

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accept inequalities within the collective, whereas the latter place higher emphasis on equality. In contrast, both vertical and horizontal individualists focus on a self-concept that is autonomous, but the former accept inequalities in status, whereas the latter place higher emphasis on equality (Singelis et al.).

Triandis (1995, 1996) has suggested that parallels can be made between I–C and value orientations. Schwartz (1992) proposed that values and value types exist that are universal across cultural groups, albeit to varying degrees. This construct has been helpful in examining cultural universals and variations (e.g., Schwartz, 1992, 1994; Schwartz & Bilsky, 1987; Schwartz & Sagiv, 1995). Schwartz (1992) defined values as goal states of being that serve as guiding principles for life. In attempting to capture these value types, he and his colleagues have developed the Schwartz Value Inventory (1992, 1994), which has been applied through several large-scale cross-cultural studies. Applying multidimensional scaling on the 56 items in this scale has shown a structure of 10 distinct individual-level value types: power (e.g., social status, or dominance over people and resources), achievement (e.g., personal success through one’s own efforts), hedonism (e.g., pleasure or sensuous gratification), stimulation (e.g., excitement and novelty), self-direction (e.g., independence of thought and action), universalism (e.g., understanding, tolerance, and protection for the welfare of all people and nature), benevolence (e.g., preserving and enhancing the welfare of people), tradition (e.g., respect and commitment to cultural or religious customs and ideas), conformity (e.g., restraint of actions and impulses that may harm others and violate social expectations), and security (e.g., safety and stability of society, relationships, and self).

Schwartz (1992) further represents the value types in a two-dimensional space for individual level analysis. The first bipolar dimension depicts openness-to-change (self-direction and stimulation) on one pole and conservation (security, conformity, and tradition) on the other. The second opposition depicts self-enhancement (power and achievement) on one pole and self-transcendence (universalism and benevolence) on the other. Hedonism is related both to openness-to-change and self-enhancement. Self-transcendence is an orientation towards the welfare of others (priority of interests above one’s own), whereas self-enhancement is an orientation toward self-interest (priority of individual interest).

Triandis’s (1995, 1996) thesis regarding the parallels between Schwartz’s value types and Triandis’s concept of horizontal and vertical I–C suggests that (a) the poles of Schwartz’ first dimension of openness-to-change (including self-direction, stimulation, and hedonism) and conservation (security, conformity, and tradition) correspond to individualism and collectivism respectively, whereas (b) the poles of the second dimension of self-enhancement (power and achievement) and self-transcendence (universalism and benevolence) correspond to the vertical and horizontal I–C dimensions, respectively. Thus, both vertical collectivists and horizontal collectivists place higher emphasis on conservation values: the preservation of tradition, following the majority, and safety seeking. In contrast,
individualists place higher emphasis on openness-to-change, espouse self-chosen directions and goals, and seek gratification of desires. Additionally, vertical collectivists give priority to power, horizontal collectivists give priority to benevolence, vertical individualists give priority to achievement, and horizontal individualists give priority to universalism. Schwartz (1994) considers the poles of the openness-to-change versus conservation dimension to correspond to the poles of the individualism ("autonomy") versus collectivism ("embeddedness of the person vis-à-vis the group") dimension, respectively.

Oishi, Schimmack, Diener, and Suh (1998) provided some support for the relations between I-C and values as hypothesized by Triandis (1995), at least within a U.S. sample. However, they also found that vertical individualism was more strongly correlated with Power than with Achievement and not significantly correlated with Vertical Collectivism, contrary to suggestions by Triandis (1995), thus merit ing further investigation. Similarly, Gelfand, Triandis, and Chan (1996) examined the relationship between authoritarianism and collectivism. They found that authoritarianism, when conceptualized as giving importance to social conventions and customs (e.g., "respect for tradition," "devoutness"), was related to collectivism. However, when authoritarianism was conceptualized as power relations (e.g., "punishment towards those who deviate"), there was no direct relation to collectivism. This set of findings is somewhat consistent with the ideas that collectivism is related to conservatism and that delineations should be made between different dimensions of collectivism.

Religiosity, Individualism–Collectivism, and Values

Religiosity has been identified as a possible significant sociocultural factor in predicting individual differences in various aspects of personality and behavior (e.g., Brown, 1986; Gorsuch, 1988; Hood, Spilka, Hunsberger, & Gorsuch, 1996; Lau, 1989). Scholars differ somewhat in their definitions of religiosity and its treatment in data analysis. However, most definitions include the importance and centrality of religion in one's life, subjective religiosity (Verbit, 1970). This definition of religiosity does not necessarily refer to a linkage between an individual and the divinities of religion but rather to a linkage between an individual and a certain worldview (Verbit, 1970).

Most religions promote particular sets of values and attitudes, which in turn can be linked to I-C and other cultural constructs. For example, significant relations have been found between religiosity and political ideology and attitudes (Duriez, Luyten, Snauwaert, & Hutsebaut, 2002), identity formation (Youniss, McLellan, & Yates, 1999), and prejudice (Billiet, 1995; Fisher, Derison, Polley, & Cadman, 1994).

Empirical investigations on the direct links between I-C and religiosity are scarce. Nonetheless, many political philosophers and scholars of the 20th century have recognized the relations between the two constructs. Sampson (2000)
suggested that I–C can be framed within the underlying concepts of religions. For example, Christianity is premised on (a) the concept of individual salvation and (b) the concept of human nature as having its essence within each person, thus being in line with individualism. In contrast, other religions, like Rabbinic Judaism, are premised on concepts of human essence existing in the person–other dialogue, and thus are more aligned with collectivism.

Other examples of proposed I–C–religion links include Max Weber’s suggestion that capitalism is a consequence of the Protestant Work Ethic (PWE), where the attainment of worldly success is considered as an important facet of religious salvation (Schroeder, 1992). Similarly, Furnham (1990) found that individualism was one of the core values of the PWE. In a review of I–C, Kagitcibasi (1997) stated that although monotheistic religions such as Judaism, Christianity, and Islam have emphasized collective tendencies, the European reformation of Christianity has emphasized individualism. Sinha and Tripathi (1994) suggested that in individualist cultures, religious beliefs and salvation are personal and that personal salvation and religious beliefs have a more communal nature. Taken together, religion and religiosity arguably have implications for I–C tendencies of individuals and for I–C tendencies across societies.

In contrast to the lack of empirical literature directly linking I–C and religiosity, there are considerably more studies that examine the relations between religiosity and value priorities. Most religions espouse values that move away from individual fulfillment through worldly possessions and self-focused gratification. Many sects espouse self-sacrifice and a focus on more spiritual rather than material and worldly aspirations (e.g., Catholicism, Islam, Protestantism). This pattern is corroborated by empirical studies that examine Schwartz’s value types and their structure of conflict and compatibility. Several scholars have found similar patterns of relations between religiosity and value priorities across different religious orientations and societies (e.g., Huismans, 1994; Huismans & Schwartz, 1990; Roccas & Schwartz, 1997; Schwartz & Huismans, 1995). Those studies have shown that religiosity is associated positively with value types that enhance transcendence, preserve the social order, and protect individuals against uncertainty (e.g., tradition, conformity, security, benevolence) and is associated negatively with value types that emphasize self-indulgence and that favor intellectual or emotional openness-to-change (e.g., hedonism, stimulation, self-direction). The correlations of religiosity with achievement, power, and universalism either were generally near zero or varied across different religious practices. Similarly, previous studies using the Rokeach Value Survey (Rokeach, 1973) showed that religious groups exhibited higher preferences for moral and relational values (e.g., forgiving, honest, helpful) but a lower preference for personal competency and egoistic values (e.g., pleasure, freedom, being independent; for a review, see Lau, 1989).

Additionally, Singelis and colleagues (1995) reported some relations between I–C and rationalism (skepticism or no religion), showing that rationalism was associated positively with horizontal individualism, was associated
negatively with vertical collectivism, and was not significantly associated with horizontal collectivism. In summary, therefore, there is substantial evidence that suggests a link between values and religiosity.

The Present Study: Turkey, the Philippines, and the United States

We designed the present study to examine the interrelations among I-C, values, and religiosity in three countries: Turkey, the Philippines, and the United States. The three separate factors tap into deeply rooted belief systems and orientations. Therefore, understanding how they interrelate might help better depict and explain cross-cultural differences. The potential links between I-C and values—both in their direct relations and in the pattern of relations that they show with religiosity—additionally allow for the examination of the degree of convergent validity between I-C and values.

There are several different ways to conceptualize I-C (see Oyserman et al., 2002, for review) and values (or religiosity). However, the similarity between Schwartz’s value types and Triandis’s (Singelis et al., 1995; Triandis, 1995) conceptualization of I-C (as horizontal and vertical) has been acknowledged previously (e.g., Oishi et al., 1998; Schwartz, 1994; Triandis, 1995). In the present study, we examined the relations between these constructs through Triandis’s four types of I-C and through Schwartz’s value types.

In previous studies of religiosity and values or I-C (e.g., Roccas & Schwartz, 1997; Schwartz & Huismans, 1995), the main focus has been on groups subscribing to the Judeo-Christian tradition. Those studies have shown links between religiosity and values that are mediated by the church–state relations. In contrast, we conducted the present study in three countries with similar religion–state relations (cordial separation) but various predominant religions. Turkey, with 95–98% of the population being considered Muslim, has witnessed a highly dramatic declaration of the state as secular and officially separate from religion. Although the state has been a secular republic for the last 70 years, Islam has kept its vitality among the majority of the population, and religion–state relations have not been completely smooth. Turkey has experienced a process of rapid economic and social change along with rapid urbanization, resulting in considerable diversity of religious observances and viewpoints in different sectors. There is no accurate information on the size of different sects of Islam or religious practices because Turkey does not compile official data on religious affiliation.

The U.S. Constitution, which was adopted in 1789, is the oldest written constitution in the world. Article Six forbids any religious test for holding national office, and the First Amendment states that “Congress shall make no law regarding an establishment of religion or prohibiting the free exercise thereof.” Since that time, the Supreme Court has heard numerous cases concerning the right of religious freedom. Nonetheless, U.S. society today seems to be well ahead of other Western countries in many measures of religiosity such as percentages of
the population in church attendance and of citizens having a religious affiliation (e.g., Campbell & Curtis, 1994; Greeley, 1989; Reimer, 1995). According to the *Universal Almanac* (1996), 86% of the population define themselves as Christian (61% are Protestant, 25% are Roman Catholic) with over 1,000 Christian groups, and 7% of the population are not affiliated with any religion.

In the Philippines, the predominant religion is Catholicism (85% of the population), followed by Protestantism (7.5%), Islam (5%) and other groups (3%). The salience of Catholicism is a product of colonial occupation by Spain from the 16th century to the 19th century, which was one marked by the spread of religion and the dominance of the church over civilian society. During the Spanish occupation, the church and the state were so strongly unified that the clergy often held positions of power in many aspects of the country: economic rule, education, and government, among others (Adherents.com, 1999; Steinberg, 1990; U.S. Department of State, 1999). Today, after colonization by the United States, and the establishment of an independent Republic of the Philippines in 1946 (Weber, 2000), the official relationship can best be described as that of cordial separation. Like the United States, the Philippine Constitution requires a separation between church and state (Sec. 28, Article 6).

The goal of the present study was to examine the parallels between I–C and values across three cultural groups. This examination was done in two ways. First, it directly tested Triandis’s (1995) thesis on the similarity between Schwartz’s value types and horizontal and vertical I–C. Based on Triandis’s (1995) assertions regarding the relations between specific I–C and value orientations, we hypothesized the following set of positive associations: (Hypothesis A) conservation values (tradition, conformity, and security) and collectivism (horizontal and vertical), (Hypothesis B) openness-to-change values (self-direction, stimulation, and hedonism) and individualism (horizontal and vertical), (Hypothesis C) vertical individualism and achievement, (Hypothesis D) horizontal individualism and universalism, (Hypothesis E) vertical collectivism and power, and (Hypothesis F) horizontal collectivism and benevolence.

The second way in which the current study examined the links between I–C and values was by investigating the patterns of relations that both variables have with religiosity. Many religions espouse a movement away from worldly success and instead focus on spiritual, self-transcendent aspirations and a preservation of traditional laws and beliefs. In addition, earlier studies have pointed to a link between values and religiosity (e.g., Huismans, 1994; Rocas & Schwartz, 1997; Schwartz & Huismans, 1995). Accordingly, we hypothesized the following second set of relations (which we’ve designated by letters continuing from the previous list): (Hypothesis G) positive relations between religiosity and conservation values (tradition, conformity, and security) and benevolence, (Hypothesis H) negative relations between religiosity and openness-to-change values (hedonism, stimulation, and self-direction), and (Hypothesis I) near-zero relations between religiosity and power, universalism, and achievement.
As discussed in the previous sections, past studies have shown that religiosity is positively associated with value types that emphasize conservatism and enhance transcendence (e.g., tradition, benevolence) and negatively associated with value types that emphasize self-indulgence and favor intellectual or emotional openness to change (e.g., hedonism, stimulation, self-direction). Additionally, because we also hypothesized conservation to relate positively to collectivism and openness-to-change to relate positively to individualism, we hypothesized the following third set of relations (which we've designated by letters continuing from the previous list): (Hypothesis J) positive relations between religiosity and collectivism (horizontal and vertical collectivism), and (Hypothesis K) negative relations between religiosity and individualism (horizontal individualism and vertical individualism). Value types of self-enhancement (e.g., power and achievement) and self-transcendence (e.g., universalism; the vertical dimension and horizontal dimension, respectively, in Triandis, 1995) have shown near-zero correlations with religiosity and have varied across countries with different religious practices. Therefore, we hypothesized the following relation (which we’ve designated by a letter continuing from the previous list): (Hypothesis L) religiosity would correlate with horizontal I–C and with vertical I–C similarly.

We hypothesized the relations between I–C and values to be similar across all three samples because these constructs have been conceptualized as universal (Schwartz, 1992). And although levels might vary across cultures, Schwartz supposed that they hold the same underlying meanings, and therefore we expected them to show the same relations. In contrast, it is not known whether the interrelations with religiosity will remain similar across the three countries. Researchers (e.g., Roccas & Schwartz, 1997) have shown that the values–religiosity link is mediated by the nature of the church–state relationship. However, it is not known whether those relations (I–C–religiosity and values–religiosity) are mediated by the religious tradition, which in this case includes Islam, Protestantism, and Catholicism. In this context, there is no hypothesis regarding the cross-cultural similarities or differences in such patterns.

Method

Participants

Participants were a total of 475 college students. We recruited these students from state universities in Ankara, Turkey (66 males, 97 females, 1 did not report gender); Manila, Philippines (42 males, 86 females, 1 did not report gender); and Lincoln, NE, United States (73 males, 106 females, 3 did not report gender). The Turkish sample was recruited from introductory-psychology courses (group administration), whereas the Philippine sample was recruited from other introductory undergraduate classes (i.e., introductory economics and introductory English composition). We recruited the U.S. sample from an introductory-psychology subject
pool, and participants received one credit for being in the present study. All schools were located in urban cities, with participants reporting residing in these urban cities.

The mean ages of participants for the United States, Turkey, and the Philippines were 20.03 years ($SD = 2.51$ years), 19.53 years ($SD = 1.72$ years), and 18.12 years ($SD = 1.85$ years), respectively. In the U.S. sample, 121 participants identified themselves as Protestant, 36 identified themselves as Catholic, 18 identified themselves as not affiliated with any religious group, and 7 identified themselves as in “other” groups. In the Philippine sample, 117 identified themselves as Catholic, 5 as Protestant, and 7 as Christian. In the Turkish sample, 150 identified themselves as Muslim, 4 identified themselves as in “other” religious groups, and 10 did not fill out the affiliation question but filled out the religiosity questionnaire. In the Turkish questionnaire, there was no question about the sect affiliation within Islam.

**Materials**

Participants responded to paper-and-pencil measures of I–C, values, and religiosity during class periods. The measures were as follows.

_Horizontal and Vertical Individualism–Collectivism Scale (Singelis, Triandis, Bhawuk, & Gelfand, 1995)._ The Horizontal and Vertical Individualism–Collectivism Scale (Singelis, Triandis, Bhawuk, & Gelfand) comprised four subscales, each having eight items. These subscales measured vertical collectivism, vertical individualism, horizontal collectivism, and horizontal individualism. The construct validity of these variables in United States has been established (e.g., Oishi et al., 1998; Triandis & Gelfand, 1998). However, to ascertain measurement equivalence for the 32-item measure across the national samples of Turkey, the Philippines, and the United States, we conducted separate factor analyses (using varimax rotation) for each national sample. The results across samples supported a 4-factor solution that reflects the four original factor solutions (Singelis et al., 1995).

In the subsequent analysis, we used a cut-off coefficient of .45 for item-inclusion in interpreting factor loadings and item loadings on same-factor solutions across all three samples. The explained variance of each factor ranged from 5.7% to 20.6% across samples. Vertical Individualism (e.g., “Winning is everything”) and Horizontal Collectivism (e.g., “I feel good when I cooperate with others”) each had five items with high loadings in all cultural groups. Likewise, Vertical Collectivism (e.g., “Parents and children must stay together as much as possible”) and Horizontal Individualism each consisted of three items (e.g., “I'd rather depend on myself than others”). We calculated each participant’s score for the factors by taking the mean of items including that factor. Cronbach’s alpha reliabilities for the Horizontal Individualism, Horizontal Collectivism, Vertical Collectivism, and Vertical Individualism subscales were as follows: for Turkey, .55, .63, .84, and .67, respectively; for the Philippines, .70, .78, .89, and .77, respectively; and for the United States, .63, .64, .81, and .76, respectively.
The Schwartz (1992) Value Survey. The Schwartz (1992) Value Survey includes a list of 56 values that respondents rated in terms of importance in their lives. We used a 9-point Likert-type scale, ranging from \(-1 = \text{opposed to my principles}\) to \(7 = \text{of supreme importance}\). Of the original 56 items, only 45 were used for analyses. The shortened list reflected those items that Schwartz and Sagiv (1995) have shown to have acceptable equivalence in meaning across cultural groups. Both the U.S. sample and the Philippine sample received the original measures in English. The Turkish sample received the original Turkish version of the scale (Schwartz, 1994).

We computed a score for the importance of each value for each individual on the basis of the mean importance rating that the individual gave to each value that we had postulated to represent each value in Schwartz’s (1995) theory. Summative indices for the three samples were then formed for each of the ten value types by combining the mean ratings on the values. Formulation of value types of tradition included “devout,” and the value has been conceptually linked to religiosity (Schwartz & Huismans, 1995). Therefore, we alternatively computed the value type of Tradition without the score on “devout” when examining the religiosity and value relation.

We calculated alpha coefficients of the individual-level value dimensions. The Openness dimension includes items from value types of Stimulation, Self-Direction, and Hedonism; the Conservation dimension includes Conformity, Tradition and Security; the Self-Enhancement dimension includes Achievement and Power; and the Self-Transcendence dimension includes Universalism and Benevolence. Schwartz (1992) found Hedonism to relate to both Openness to Change and Self-Enhancement in Schwartz’s (1992) value structures. However, Triandis (1995) considers Hedonism as part of the Openness dimension. Because it was also a purpose of the present study to find the relations between Openness and Triandis’s (1995) dimensions of I–C, we included Hedonism in the Openness dimension for analysis. Alpha reliabilities for Openness (10 items), Conservation (14 items), Self-Enhancement (8 items), and Self-Transcendence (13 items) were calculated separately for each country. For the Turkish sample, alpha coefficients were .76, .84, .72, and .81, respectively. For the Philippine sample, the reliabilities were .81, .84, .74, and .86, respectively. For the U.S. sample, the reliabilities were .80, .77, .73, and .81, respectively.

Religiosity scale. Many researchers have noted that the behaviors and beliefs endorsed by different religious traditions and sects may be highly diverse and specific. In that context, the various aspects of religion may not naturally fall into a continuum within specific dimensions (e.g., Allport & Ross, 1967; Gorsuch & McFarland, 1972; Hood et al., 1996; Loewenthal, 2000). However, several researchers have suggested that a uni-dimensional conceptualization of religiosity should be considered when the relationship between religiosity and general cultural variables is examined or when the relations are tested in different religious
groups (e.g., Gorsuch & McFarland, 1972; Schwartz & Huismans, 1995). Therefore, as in previous studies on religiosity and values, in the present study we treated religiosity as a uni-dimensional variable and measured it through the following one item, “My religious beliefs are very important to me,” which participants rated on a Likert-type scale ranging from $1 = \text{disagree}$ to $7 = \text{agree}$. The item focused on the nature of participants’ beliefs about their strength of religious beliefs (e.g., Huismans, 1994; Huismans & Schwartz, 1990; Roccas & Schwartz, 1997; Schwartz & Huismans, 1995).

**Results**

*Level of Religiosity and Individualism–Collectivism Across Three Samples*

We conducted a series of univariate analyses of variance (ANOVA) to determine whether the three samples (Philippines, Turkey, and the United States) differed in their levels of subjective religiosity and horizontal and vertical I–C. The analyses revealed no main effects for country differences on religiosity.

Several significant differences emerged in the ANOVA that we conducted on horizontal and vertical individualism and collectivism across the country samples. We found significant differences for horizontal individualism, $F(2, 472) = 10.57, p < .0001, \eta^2 = .04$; vertical individualism, $F(2, 472) = 4.40, p < .05, \eta^2 = .02$; and vertical collectivism, $F(2, 470) = 18.04, p < .0001, \eta^2 = .07$. We found no significant difference for horizontal collectivism.

We conducted Tukey’s HSD post hoc tests ($p < .05$) to examine pair-wise differences in horizontal individualism, vertical individualism, and vertical collectivism. For horizontal individualism, Tukey’s HSD post hoc test ($p < .05$) indicated that U.S. participants ($M = 5.46, SD = 0.65$) and Filipino participants ($M = 5.49, SD = 0.74$) scored significantly higher than did Turkish participants ($M = 5.15, SD = 0.84$). U.S. and Filipino students did not significantly differ on this variable.

For vertical individualism, Tukey’s HSD post hoc test ($p < .05$) indicated that the U.S. participants ($M = 4.44, SD = 0.99$) and the Turkish participants ($M = 4.28, SD = 1.18$) scored higher than did the Philippine participants ($M = 3.97, SD = 0.96$). No significant differences were found between the Turkish sample and the U.S. sample.

On vertical collectivism, the Philippine participants ($M = 5.11, SD = 0.81$) scored higher than did both the Turkish participants ($M = 4.71, SD = 1.02$) and the U.S. participants ($M = 4.52, SD = 0.72$). We found no significant differences between the Turkish sample and the U.S. sample.

*Horizontal and Vertical I–C and Values*

Controlling for age and gender (partial correlations) within each sample
yielded no significant findings on the correlations between horizontal and vertical I–C and either religiosity or value priorities. So, we excluded age and gender from further analyses. As suggested by Schwartz (1992), we partialled out the mean ratings of value items of the correlations between values with horizontal–vertical I–C scales, as well as religiosity, to control individual differences in use of ranking response scale on the Schwartz Value Survey. We based the correlations for total sample on z-transformation scores, giving equal weight to each sample.

Table 1 presents bivariate correlations between value types and horizontal and vertical I–C. We found partial support for the first set of hypotheses regarding the relations between values and I–C. First, significant positive relations were found between conservation values (traditionalism and conformity but not security) and collectivism (Hypothesis A). All three conservation values were positively associated with vertical collectivism in all three countries; and tradition and conformity were positively related to horizontal collectivism in all three countries, except for the nonsignificant relation between tradition and horizontal collectivism among Turkish respondents. Horizontal collectivism and security were not significantly correlated in any of the samples. Benevolence was positively and significantly correlated with both horizontal collectivism and vertical collectivism in the Turkish and Philippine samples but with only horizontal collectivism in the U.S. sample. Note that vertical collectivism was negatively and significantly related to the openness-to-change values of self-direction and stimulation for all samples. Also, power was negatively and significantly related to horizontal individualism across samples.

The present results only partially supported the hypothesized relations between the individualism and openness-to-change (hedonism, stimulation, self-direction) values (Hypothesis B). In all three countries, self-direction was positively and significantly related to horizontal individualism; and hedonism was significantly and positively related to vertical individualism. Additionally, for the Turkish sample, hedonism and stimulation were positively and significantly related to horizontal individualism; and self-direction was negatively and significantly related to vertical individualism. Note that we found some negative relations between individualism and the conservation values. Specifically, horizontal and vertical individualism were negatively associated with tradition and conformity values. Additionally, both vertical and horizontal individualism were negatively related to security in the Turkish sample.

The present results also partially supported the hypothesized relations between horizontal and vertical I–C and specific values. As hypothesized, vertical individualism and achievement (Hypothesis C) and horizontal collectivism and benevolence (Hypothesis F) were positively and significantly related across all three samples. However, horizontal individualism and universalism (Hypothesis D) were positively and significantly related, but only in the U.S. sample, and vertical collectivism and power (Hypothesis E) were not significantly related.
Religiosity and Values

We conducted bivariate correlations between religiosity and each of the value types. See Table 2. The correlations for the combined samples are in the fourth column. We found substantial support for the hypothesized positive relations between religiosity and conservation values across samples (Hypothesis G). More specifically, religiosity was positively related to tradition, tradition without devout, and conformity for all three samples. Security was positively associated with religiosity only for the Turkish sample and the combined sample. Benevolence was also positively and significantly correlated to religiosity in all samples.

Conversely, religiosity was negatively associated with openness-to-change (hedonism, stimulation, self-direction) values (Hypothesis H). More specifically, Religiosity was significantly and negatively correlated with hedonism and self-direction across all three countries and negatively correlated with stimulation for the Turkish sample.

The present results only partially supported the hypothesized zero and near-zero relations between religiosity and power, universalism, and achievement (Hypothesis I). Religiosity was found to be negatively and significantly correlated to power in both the U.S. sample and the Philippine sample, significantly and negatively related to achievement in the Philippine sample, and negatively related to universalism in the Turkish sample.

Religiosity and Horizontal and Vertical I–C

Table 2 also presents correlations between religiosity and horizontal and vertical I–C. The hypothesized positive relations between religiosity and vertical and horizontal collectivism (Hypothesis J) were fully supported. In contrast, the hypothesized negative relations between religiosity and horizontal and vertical individualism (Hypothesis K) were hardly supported. Only vertical individualism and religiosity for Turkey were significantly related, and the relation was positive in direction and therefore opposite of what was hypothesized. As was hypothesized, the horizontal dimension and the vertical dimension of I–C did not differentially associate with religiosity (Hypothesis L).

Discussion

The purpose of the present study was to examine culture-general and culture-specific associations among the related constructs religiosity, values, and individualism–collectivism (I–C) in three countries: Turkey, the United States, and the Philippines. More specifically, we designed the present study to test Triandis’s (1995) thesis regarding the similarity between Schwartz (1992) value types and horizontal and vertical I–C by examining direct relations and the patterns of relations that these constructs display with religiosity.
The present results partially supported the proposed parallels between Schwartz’s (1992) value types and Triandis’s (1995) I–C dimensions, particularly in the relations between collectivism and conservative values. Higher collectivist tendencies coincided with higher espousal of tradition and conformity in all three groups. Individualism also had some positive relations with openness-to-
change values, namely hedonism with vertical individualism and self-direction with horizontal individualism for all three countries and stimulation for the Turkish sample. Likewise, the present results partially supported the proposed relations between specific value types and the horizontal and vertical dimensions of I–C. Horizontal collectivism was related to benevolence in all three countries; and
TABLE 2. Correlations of Religiosity With Value Types and Individualism–Collectivism

<table>
<thead>
<tr>
<th>Variable</th>
<th>Turkey</th>
<th>Philippines</th>
<th>United States</th>
<th>Averageda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value types</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>.09</td>
<td>-.25*</td>
<td>-.34**</td>
<td>-.12*</td>
</tr>
<tr>
<td>Achievement</td>
<td>-.08</td>
<td>-.33**</td>
<td>-.01</td>
<td>-.05</td>
</tr>
<tr>
<td>Universalism</td>
<td>-.26*</td>
<td>.05</td>
<td>.02</td>
<td>-.03</td>
</tr>
<tr>
<td>Benevolence</td>
<td>.23*</td>
<td>.23*</td>
<td>.34**</td>
<td>.23**</td>
</tr>
<tr>
<td>Hedonism</td>
<td>-.32**</td>
<td>-.21*</td>
<td>-.32**</td>
<td>-.22**</td>
</tr>
<tr>
<td>Stimulation</td>
<td>-.37**</td>
<td>-.10</td>
<td>-.08</td>
<td>-.14*</td>
</tr>
<tr>
<td>Self-direction</td>
<td>-.29**</td>
<td>-.17*</td>
<td>-.17*</td>
<td>-.14*</td>
</tr>
<tr>
<td>Conformity</td>
<td>.36**</td>
<td>.36**</td>
<td>.40**</td>
<td>.30**</td>
</tr>
<tr>
<td>Security</td>
<td>.28**</td>
<td>.05</td>
<td>-.04</td>
<td>.09*</td>
</tr>
<tr>
<td>Tradition</td>
<td>.53**</td>
<td>.50**</td>
<td>.46**</td>
<td>.42**</td>
</tr>
<tr>
<td>Tradition without “devout”</td>
<td>.30**</td>
<td>.36**</td>
<td>.23*</td>
<td>.25**</td>
</tr>
<tr>
<td>Individualism–collectivism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal individualism</td>
<td>-.06</td>
<td>.14</td>
<td>-.05</td>
<td>-.01</td>
</tr>
<tr>
<td>Vertical individualism</td>
<td>.14*</td>
<td>-.10</td>
<td>-.10</td>
<td>-.02</td>
</tr>
<tr>
<td>Horizontal collectivism</td>
<td>.16*</td>
<td>.40**</td>
<td>.28**</td>
<td>.27**</td>
</tr>
<tr>
<td>Vertical collectivism</td>
<td>.41**</td>
<td>.37**</td>
<td>.22*</td>
<td>.33**</td>
</tr>
</tbody>
</table>

*Averaging was based on r to z transformations, giving equal weight to each religious group.
*p < .01. **p < .001.

vertical individualism was related to achievement in all three countries. However, power was not significantly related to vertical collectivism, contrary to Triandis’s suggestions. Instead, power was related to vertical individualism in all three countries, being consistent with the pattern of results reported by Oishi and colleagues (1998).

The present results are also consistent with earlier work by Gelfand and colleagues (1996), who found links between collectivism and authoritarianism when defined as giving importance to social conventions and customs (which is similar to the conceptualization of conservativeness here) but not when conceptualized as power relations. In the present study, values of conformity, tradition, and security—but not power—correlated with vertical collectivism. Moreover, Gelfand and colleagues suggested that collectivism was a more delineated and well-defined construct than individualism, perhaps helping to explain why the current findings clearly support the conservative values and collectivism link but provide less support for the openness-to-change values and individualism link.

While the overall patterns explained earlier in the present article provide interesting information regarding the I–C and values links, some interesting patterns of interrelations also emerged that differed across the samples. For
example, achievement was positively related to vertical individualism in all three countries. However, achievement was negatively associated with vertical collectivism in the Philippine and Turkish samples but positively associated with vertical collectivism in the U.S. sample. Thus, in both the Turkish sample and the Philippine sample, a higher espousal of collective and egalitarian values was linked to a lower espousal of achievement values. The opposite was true for the U.S. sample. Similarly, benevolence appeared to be a core value of both vertical collectivism and horizontal collectivism in the Turkish and Philippine samples, whereas benevolence appeared to better define only the horizontal dimension of collectivism in the U.S. sample. The differential patterns of findings between countries certainly merit further investigation and provide important support for the assertions of earlier researchers of the need to take a closer look at various aspects of I–C not only between cultures but also within cultures (e.g., Kagitcibasi, 1997; Kim, 1994; Leung & Brown, 1995; Oyserman et al., 2002; Peng, Nisbett, & Wong, 1997).

The present results also most supported the links that we had hypothesized between religiosity and values and between religiosity and I–C. In particular, we found religiosity to be positively related to conservative values and negatively related to openness-to-change across samples and consequently across predominant religions. Such findings are consistent with previous studies (e.g., Huismans, 1994; Huismans & Schwartz, 1990; Schwartz & Huismans, 1995) that link religiosity with conservativeness. The present results extend those earlier findings by including a sample wherein the predominant religion is outside of the Judeo-Christian tradition. Although having numerous differences, all three of the religions represented by the present samples—Islam, Protestantism, and Catholicism—reflect Conservative values somewhat. For example, all three place great emphasis on traditional beliefs and texts (i.e., the Bible and the Koran) and laws pertaining to morality and behavior. Similarly, all three emphasize conformity to religious laws and the desire to preserve certainty in relationships, especially with a supreme being. These characteristics make the positive relations between religiosity and conservative values and the negative links to openness-to-change values clear.

In the present study, although religiosity was related to I–C in consistent ways across samples, we found variable relations between religiosity and the other value types that Triandis (1995, 1996) had proposed were parallel to the vertical and horizontal dimensions and that we had proposed were unrelated to religiosity: power, achievement, and universalism. For the United States and the Philippines, religiosity was negatively associated with power, or the desire for personal status. One possible explanation for this is that the Catholic and Protestant religions both espouse humility and the movement away from seeking worldly success. These sentiments are reflected in various places within the Bible (e.g., “Blessed are the meek for they shall inherit the earth”). Whereas Protestantism promotes a drive for self-achievement and power, the Christian tenets upon which it is based promote the movement away from worldly success.
Moreover, only in the Philippine sample, we found a negative relation between religiosity and achievement. Scholars have suggested that in the Philippines, religious belief is translated into a tendency to attribute events to God (e.g., Ramirez, 1997). Furthermore, although Filipino religious belief promotes betterment of life through work, there is also a tendency among some Filipinos to take on a "bahala na" attitude or the sense of leaving one's fate to God (Andres, 1994). However, the interpretation of this particular attitude has been debated (Pe-Pua & Protacio-Marcelino, 2000). This is one possible explanation for the negative religiosity–achievement relation among Filipino Catholics in the present study.

In the present Turkish sample, we found a negative relation between religiosity and universalism, or the valuation of the betterment of all humanity. What might account for this seemingly counterintuitive finding? Some scholars have proposed that Islam displays very close links between religion and politics (e.g., Weber, 1968; cf. Schroeder, 1992). In this line, empirical scholars have identified an Islamic Work Ethic (IWE), in which values about individual effort and achievement are closely linked to one's contribution to community and one's own country (e.g., Abu-Saad, 1998; Ali, 1988). The findings of these scholars might provide some clues as to why in the present study we found the negative relation between religiosity and universalism. However, because three different religions (two of which are based on Christianity) and three different culture groups are involved, it is difficult to determine whether (a) the present findings are due to differences in religious affiliations or (b) the present findings are reflective of cultural and sociohistorical dissimilarities.

Lastly, in the present study we found support for the relations between religiosity and collectivism (both vertical and horizontal), with higher collectivist tendencies being related to higher levels of religiosity. In contrast, religiosity was negatively correlated—or near zero in relation—to both horizontal and vertical individualism. One unexpected difference was the positive correlation between vertical individualism and religiosity in the Turkish sample. Note that vertical individualism was positively correlated to power across the three samples—contrary to Triandis's suggestion—and that religiosity was positively correlated to power and security in the Turkish sample only. Therefore, the unexpected differences might reflect strong associations of the vertical dimension—but not the horizontal dimension—with Religiosity in the Turkish sample.

These findings provide preliminary support for the relations between worldviews and tendencies and religiosity proposed by scholars and political philosophers that we discussed earlier in the present article. Note that although the three countries' samples in the present study represented three different religions, we found similar links between religiosity and I–C. As mentioned earlier, scholars and political philosophers have suggested that Christianity is based on personal salvation and may thus prompt individualism (Sampson, 2000). Other scholars have suggested that Catholicism tends toward collectivism, whereas religions springing from the Catholic reformation—such as Protestantism—tend more
toward individualism (e.g., Kagitcibasi, 1997). Although Islam emphasizes many collective-oriented values (e.g., belief in caring for others), it has been linked to personal achievement and work as part of salvation and might also be linked somewhat to individualism. These differences notwithstanding, the present findings suggest that religiosity is linked to collectivist tendencies.

Scholars should take into account some limitations when interpreting the current findings. First, the correlational nature of the present study does not allow one to infer the direction of causality (e.g., “people are religious, therefore, they are more collectivist and less individualist”). Second, religiosity is a multidimensional construct, and earlier scholars (Allport & Ross, 1967; Loewenthal, 2000; Verbit, 1970) have already differentiated several dimensions, including the intrinsic, extrinsic, mystical, and other dimensions. Also, the use of single items as indexes of religiosity, when investigated across cultures or religions, might lead to some confounding effects because not only the strength of what is called “subjective religiosity” but also its meaning can vary across cultural groups (e.g., Gorsuch & McFarland, 1972; Hood et al., 1996; Reimer, 1995). Therefore, future endeavors should include the use of multidimensional indices to capture the other components of religiosity. Additionally, some scholars (e.g., Hofstede, 1991) have suggested that many of the guiding principles of East Asian societies—as compared to other, monotheistic concepts—are not consistent with what is traditionally conceived of as “religious.” Accordingly, a more comprehensive study that incorporates such differences in the very conception of religiosity would provide a better understanding of this variable.

In summary, the present findings suggest that collectivists tend to be both conservative in values and more religious than others. Collectivists in all three countries espoused values promoting tradition, conforming to group norms, and seeking a sense of security and certainty. Collectivists are lower on values that reflect an openness to change in the current states of things, having a low espousal of values reflecting the desire to fulfill one’s own needs and desires and the desire to direct one’s own life, decisions, and the like. Collectivists are also higher on subjective religiosity, but higher individualism was not related to any systematic variability in religiosity. Such patterns partially support Triandis’s (1995) thesis regarding the parallelism between value types and vertical and horizontal I–C across the three country samples. Moreover, although consistent relations were found across countries, there were some interesting cross-cultural differences that merit future investigations.

The important contribution of the present study is its support for the links between I–C and values and between (a) religiosity and (b) the I–C and value constructs across the samples. Currently, scholars are using various constructs to capture cross-cultural differences and similarities but doing little to integrate these constructs. Cross-cultural research could benefit from theoretical integration of such widely used sociocultural constructs as values, I–C, and religion.
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