Are Societal Values Linked to Global Peace and Conflict?

Ronald Fischer *; Katja Hanke *

* Centre for Applied Cross-Cultural Research, School of Psychology, Victoria University of Wellington,

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Centre for Applied Cross-Cultural Research, School of Psychology, Victoria University of Wellington

This study examines the link between societal level values measured in student and teacher samples and the Global Peace Index (GPI). Consistent with predictions, strong and consistent correlations between harmony, hierarchy (negative), and intellectual autonomy were observed. Overall, an integrated set of values was systematically related to GPI. Effects remain strong and stable even when controlling for economic, societal, and political development and perceptions of corruption. Furthermore, evidence that values and societal developments interact in their relation with GPI was found. Implications for conflict management are discussed.

Achieving peace and understanding its roots and correlates are of immense importance for the long-term survival of our species and the planet in our violent times. There are currently over 30 ongoing open wars and armed conflicts around the world (see Global Security, 2007: http://www.globalsecurity.org/military/world/war/). Given war as a final and violent means of conflict resolution, one may wonder whether there is some relation between the engagement in violent conflict and human values. A number of theories across different disciplines propose such a link. Pilisuk and Zazzi (2006) proposed a psychosocial theory of global violence. They argued that values and beliefs associated with a worldview of legitimacy of power, masculine domination, and material acquisition among powerful elites (specifically...
in the United States) can explain the motivation to engage in global conflict. Similarly, social dominance theory (Sidanius & Pratto, 2001) proposes that intergroup conflict is explicable through legitimizing ideologies of social hierarchy and dominance. This theory assumes that all societies are hierarchically structured and that existing group hierarchies are reinforced (as well as challenged) using ideological indoctrination and aggression.

Peace education has certainly stressed the importance of universal ethical values for sustainable peace (democracy, equality, social justice, nonviolence, etc.), and much effort is exerted in promoting these values (e.g., Calleja & Perucca, 1999; Hicks, 1988; Likhotal, 2007). One of the principal aims of these efforts is to educate citizens to become active agents who endorse, internalize, and promote these values and transform individuals, groups, and societies so that conflicts are solved using constructive and peaceful means. However, to what extent can such endeavors be successful? What is also missing is a more macro-perspective examining modal distributions of values in subgroups of populations and how values relate to the peacefulness of the social system.

Some empirical evidence for a value–peace link is available. De Rivera (2004) factor-analyzed national level indicators related to peace to identify the empirical structure of a culture of peace. Four factors emerged across 74 countries. The first factor, *liberal development*, measured economic development (per capita gross domestic product [GDP], life expectancy, etc.) and indicators of democracy (press freedom, democracy index, etc.). The second factor, *violent inequality*, had loadings of national homicide rates and income inequality. The third factor, *violent means*, captured military expenditure and military use. The final factor, *nurturance*, had loadings of education expenditure and tolerance of refugees. Basabe and Valencia (2007) used these indicators and correlated them with Hofstede’s (2001) society-level value indicators across 67 countries and value ratings of teachers across 27 countries (Schwartz, 1994; see later discussion). Not surprisingly, the most consistent correlations were observed with liberal development because the link between development indicators and values has long been established (e.g., Hofstede, 1980; Schwartz, 1994). The nurturance index also showed some significant correlations, with more individualistic, feminine, and egalitarian societies taking in more refugees and spending more on education.

Similarly, cross-cultural conflict management and negotiation research has empirically demonstrated a link between value orientations and conflict strategies. Morris et al. (1998) found that traditional and conformity values explain cross-cultural differences in avoiding conflict strategies, whereas competing is related to power and achievement values. Tinsley (2001) found that hierarchy values are associated with using threats during business
negotiations. Kozan and Ergin (1999) reported that power values are associated with forcing strategies during conflict with peers. All these studies suggest that values are related to conflict styles at both the individual and group levels. Therefore, this study explores to what extent societal-level values are associated with an index of global peace and conflict. Previous political theories have focused on elites or powerful groups. To the extent that values of elites are transmitted to the larger population, we could expect that values have some relation with a society’s overall levels of conflict or peacefulness.

PEACE, VIOLENCE, AND THE GLOBAL PEACE INDEX

A short discussion of definitions of peace and types of violence within peace psychology is necessary. Violence can be direct (physical or psychological violence inflicted on individuals, groups, or nations, sometimes also labeled personal violence) or structural (indirect or impersonal violence that inflicts suffering due to harmful social, political, or economic systems; Wagner, 1988, 2006). Mirroring these types of violence, two definitions of peace can be distinguished (Galtung, 1996; Hicks, 1988). Positive peace means the absence of structural violence—that is, the presence of equitable and just structures within a society that allows for the development of all individuals, groups, and nations. Negative peace, by contrast, refers simply to the absence of direct or personal violence—that is, the absence of war and violent conflict.

Recently, an index of global peace has been developed by the Institute for Economics and Peace (see Vision of Humanity, 2008: www.visionofhumanity.org). Using a definition of negative peace, the aim of the Global Peace Index (GPI) is to measure states of peace at the societal level.

The GPI is based on 24 indicators from three categories: (a) ongoing domestic and international conflict, (b) societal safety and security, and (c) militarization. The overall indicator provides an estimate of how peaceful a society is, whether it is involved in internal or external conflicts, provides internal stability and safety to citizens, and how militarized the society is overall. The GPI has been validated against 35 society-level indicators such as internal indicators of good governance, internal integration, wealth, health, education, civil liberties, lack of corruption, income inequality, as well as externally oriented indicators such as hostility to foreigners, depth of regional integration, and relationships with neighbors (for more details, see http://www.visionofhumanity.org). The GPI also relates in meaningful ways to the aforementioned four dimensions of culture of peace (De Rivera, 2008). Although not without criticism (e.g., for neglecting the issue of domestic violence; see Eisler, 2007), it provides a useful indicator of negative peace within
a society. Because higher numbers denote lack of peacefulness, we refer to this index as an indicator of global conflict or absence of peace.

SCHWARTZ’S SOCIETAL VALUE MODEL

What values might be related to the peacefulness of a society? Several value models are available that can guide our inquiry. The most comprehensive has been developed by Schwartz (1994, 2006b). Schwartz (1994, 2006b) distinguished between seven value types that are circularly ordered along three non-orthogonal dimensions that reflect three societal issues all societies have to deal with (see Figure 1). The first dimension focuses on mastery versus harmony, capturing the extent to which individuals seek to master and dominate the social and natural world or, alternatively, try to preserve and accept a harmonious state of the world. The second dimension, hierarchy versus egalitarianism, relates to the extent to which individuals are socialized to comply with a hierarchical system of ascribed roles versus the extent to which people are seen as moral equals. The final dimension distinguishes between societies that emphasize embeddedness values (i.e., being strongly connected to a larger collective and deriving meaning in life primarily through social relationships) and autonomous societies in which

![Schwartz' Societal Value Theory](image_url)

**FIGURE 1** Schwartz' Societal Value Theory adapted from Schwartz (2006b).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Example values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hierarchy</td>
<td>Individuals accept unequal distribution of power, roles, and resources as legitimate; people are socialized to take the hierarchical distribution of roles for granted and to comply with the obligations and rules attached to their roles</td>
<td>Social power, authority, humility, and wealth</td>
</tr>
<tr>
<td>Mastery</td>
<td>Individuals are encouraged to actively assert themselves to master, direct, and change the natural and social environment to attain group or personal goals</td>
<td>Ambition, success, daring, and competence</td>
</tr>
<tr>
<td>Affective autonomy</td>
<td>People are viewed as autonomous, bounded entities; they are expected to pursue affectively positive experience for themselves</td>
<td>Pleasure, exciting life, and varied life</td>
</tr>
<tr>
<td>Intellectual autonomy</td>
<td>People are viewed as autonomous, bounded entities; they are expected to cultivate and express their own ideas and intellectual directions and find meaning in their own uniqueness</td>
<td>Broadmindedness, curiosity, and creativity</td>
</tr>
<tr>
<td>Egalitarianism</td>
<td>Individuals are socialized to internalize a commitment to cooperate and to feel concern for everyone’s welfare; they are expected to act for the benefit of others as a matter of choice and recognize one another as moral equals who share basic interests as human beings</td>
<td>Equality, social justice, responsibility, help, and honesty</td>
</tr>
<tr>
<td>Harmony</td>
<td>People are expected to fit into the world as it is; people are encouraged to understand and appreciate rather than to change, direct, or to exploit the natural and social world.</td>
<td>World at peace, unity with nature, and protecting the environment</td>
</tr>
<tr>
<td>Embeddedness</td>
<td>People are viewed as entities embedded in the collectivity; meaning is created through social relationships; emphasis within a society is on maintaining the status quo and restraining actions that might disrupt in-group solidarity or the traditional order</td>
<td>Social order, respect for tradition, security, obedience, and wisdom</td>
</tr>
</tbody>
</table>

*aSchwartz, 2006b, pp. 140–141.*
individuals are expected to find meaning in their own personal uniqueness and express their own personal preferences, attitudes, and feelings.

Given the mutual relations between these value orientations, the structure is circular, representing the options available to societies when being faced with these three universal problems. However, the model assumes a modal tendency to prefer one pole of each dimension, which then is seen as characteristic of each society (Schwartz, 1994, 2006b). Figure 1 shows the relations among the value dimensions, and Table 1 lists the value dimensions with some example values included in each index.

These dimensions are based on mean ratings of values in student and teacher samples across a large number of societies. Country explains, on average, about 12% of the variability in value scores across these samples (Fischer & Schwartz, 2009); therefore, there is more variability between individuals within countries than there is variability between countries. At the same time, this between-country variability is systematic and meaningful. The three dimensions correlate with a number of societal-level variables including achievement motivation, preferences for equality, justice principles, optimism, family size, level of democratization, corruption, international trade, rates of helping strangers, and number of women in parliament (e.g., Dekker & Fischer, 2008; Fischer & Chalmers, 2008; Fischer & Smith, 2003; Fischer et al., 2007; Schwartz, 2006b). Consequently, the position of societies on these three dimensions correlates well with a number of important social, political, psychological, and economic variables, supporting the validity of our country-level approach. Next, the hypotheses are stated.

**HYPOTHESES LINKING VALUES AND SOCIETAL PEACEFULNESS**

The circular structure of societal values allows us to integrate previous theories and empirical findings on peace and conflict. In this section, we draw together the various theoretical approaches and present an integrated set of hypotheses, following the circular structure of the values.

Values of hierarchy and inequality have been consistently related to social conflict at the national level, as well as to competitive conflict strategies at the individual level. Therefore, we predict that hierarchy relates positively to lack of peacefulness (Hypothesis 1a). Because values of egalitarianism values are opposed to hierarchy values, we expect that egalitarianism relates negatively to lack of peace (Hypothesis 1b).

Social dominance theory (Sidanius & Pratto, 2001) and the psychosocial theory of global conflict (Pilisuk & Zazzi, 2006) also imply a link to values of dominance and control. Conflicts are related to the ownership, control, and exploitation of important resources (see also Hegre & Sambanis,
This concern is closely related to the value conflict between mastery and harmony. Hence, we predict that mastery is positively related to lack of peace (Hypothesis 2a), whereas harmony is negatively related to absence of peace of a society (Hypothesis 2b).

Values concerning individual–group relationships relate to peacefulness. Cross-cultural research suggests that collectivism values (which are conceptually related to societal-level embeddedness) are associated with more avoidant conflict responses (Kozan & Ergin, 1999; Morris et al., 1998). Although avoidance might sometimes help to maintain harmonious relationships (e.g., Leung, 1997), most conflict negotiations models predict that avoiding is a costly strategy in the long run and will lead to prolonged conflict (Fisher & Ury, 1981). Embeddedness emphasizes maintaining the status quo and traditional order, with attempts to change being suppressed. Basabe and Valencia (2007) found a negative relation between nurturance and Hofstede’s (1980) collectivism. Therefore, we predict that embeddedness is positively related to peacefulness (Hypothesis 3a). Furthermore, embeddedness is opposed to both intellectual and affective autonomy. Examining the nature of intellectual autonomy, this value type includes values such as broadmindedness, curiosity, and freedom, indicating tolerance of others’ opinions. Therefore, we expect that an endorsement of intellectual autonomy values is positively associated with a lack of peacefulness—that is, a negative association with the GPI (Hypothesis 3b). Concerning affective autonomy, we do not expect a significant relation with GPI. This value type is related to norms about expression of positive emotions and feelings of individuals and, because the focus is on individuals, we do not expect any systematic relation.

Given the circular structure of the Schwartz (1994, 2006b) dimensions, the strongest test of all these individual hypotheses would be if the pattern of observed correlations follows the predicted pattern of relative strength (Hypothesis 4). The strongest positive correlation should be found for hierarchy, followed by a somewhat weaker positive correlation for mastery. At the opposite end, the strongest negative correlation should be observed for egalitarianism, followed by harmony. The integrative hypothesis predicts that all other correlations are systematically increasing and decreasing as values are located further away from the two value orientations that correlate most strongly with GPI (hierarchy and egalitarianism).

IS THE RELATION WITH VALUES DEPENDENT ON SOCIETAL DEVELOPMENT?

A number of studies have examined structural and economic explanations of conflict (e.g., Hegre & Sambanis, 2006; Staub, 2004; Wagner, 2006). To
test the robustness of the value-negative peace relation explored in our study, we control for societal, economic, and democratic development, as well as perceptions of corruption because these variables might provide alternative explanations for global conflict.

Another question remains, however—namely, whether the relation with values is uniform across different levels of societal development. In other words, do development indicators moderate the relation between values and global peace? This is a question that has not been theoretically or empirically addressed. Nevertheless, some work suggests that values as expressions of human needs are dependent on living conditions. Relative deprivation research (e.g., Gurr, 1970; Pettigrew et al., 2008; Smith & Walker, 2008; Walker & Smith, 2002) demonstrates that subjective evaluations are shaped by perceptions of social conditions. Similarly, work by Staub (2003, 2004) argued that frustration of basic human needs leads to a greater desire to restore those needs. Values are thought to express basic human needs (Gouveia, 2003; Schwartz, 1992); therefore, it might be possible that values are overall more strongly correlated with GPI, if societal living conditions are harsh.

However, a different moderation might also be possible. Values as rather abstract and intellectual goals in life are likely to become important once a basic level of needs is met. Older research on human needs (e.g., Maslow, 1954) suggests that people are more concerned with meeting their immediate needs than with expressing their values. Extending this logic to societies, it may be plausible that societies with low levels of societal development show weaker relations between values and global peace.

These analyses are purely exploratory, and we propose no hypotheses. At the same time, these questions are important from a practical and theoretical perspective. If we can identify situations where values are or are not correlated with societal level indicators of peace, we can contribute to more precise theories of conflict and values. It would also help us to identify cultures of violence by looking at the joint effects of both developmental and sociocultural roots of violence. This would contribute to applied work of peacebuilding and peace education.

METHOD

Measures

GPI. Global peace indicators for 2007 and 2008 were obtained from www.visionofhumanity.org. Data for 121 countries in 2007 and 140 in 2008 were available. The index is based on 24 quantitative and qualitative
indicators of existence or absence of peace. All scores are banded with a 1 to 5 range, with quantitative indicators being first normalized across the whole data set. Internal indicators (related to domestic or internal peace) are given a 60% weighting compared to external indicators (peace outside a society’s borders) in the final calculation of the index. The higher emphasis on the internal indicators was based on the “notion that a greater level of internal peace is likely to lead to, or at least correlate with, lower external conflict—in other words, if ‘charity begins at home’, so might peace” (see http://www.visionofhumanity.org/gpi/about-gpi/methodology.php).

The 24 indicators come from three thematic categories: measures of ongoing domestic and international conflict (number of internal and external conflicts fought between 2001 and 2006, number of deaths from organized conflict, etc.), measures of societal safety and security (level of distrust, number of displaced people as a percentage of the population, level of violent crime, number of homicides, jail population, number of internal security officers per population, etc.), and measures of militarization (military expenditure per GDP, number of heavy weapons, ease of access to small arms and light weapons, military capability, etc.). The correlation between the 2007 and 2008 index was .99, allowing us to combine the two indicators. Higher values indicate lack of peace or negative peace.

The GPI has been validated against a number of criteria (see http://www.visionofhumanity.org). To further examine the convergent validity of the index, we used data on cultures of peace from De Rivera (2004) across 74 countries and correlated it with the combined GPI scores from 2007 and 2008. We obtained negative correlations with liberal democracy ($r = -0.55$) and positive associations with violent inequality ($r = 0.45$) and violent means ($r = 0.41$). The nurturance factor did not significantly correlate with GPI ($r = -0.15$). These correlations provide further evidence that the overall score is valid and corresponds well with other measures. One shortcoming of the index is, obviously, that the overall index does not allow a differentiation of societies along the three categories.

Schwartz values. The Schwartz Value Survey (SVS) contains 56 or 57 abstract value items (58 different items in the 2 versions of 1992 and 1994; Schwartz, 1992, 2006a). Each abstract item is followed by an explanatory phrase in parentheses to further specify its meaning. Respondents rate the importance of each value item “as a guiding principle in MY life” on a 9-point scale ranging from 7 (of supreme importance) to −1 (opposed to my values). The SVS has been translated into 48 languages. Participants typically respond in their native or an official national language. We used archival data sets collected from students and teachers between 1988 and 2002 (Schwartz, 2006a). For the correlations with GPI,
teacher data were available from 53 countries ($N = 15,944$) and student data from 63 countries ($N = 26,024$). These samples come from all inhabited continents and include highly diverse geographic, cultural, linguistic, and religious groups. For further information on the samples and the SVS format, see Schwartz (2006a).

Control measures. For economic development, we used the 2004 GDP per capita (United Nations Development Program [UNDP], n.d.). This index correlated $-0.63$ ($k = 122$) with GPI. For societal development, we used the 2000 indicator of the Human Development Index (HDI; UNDP, n.d.) as an index of meeting basic requirements of citizens living in a country (e.g., access to education, population health, meeting basic living requirements). It correlated $-0.61$ ($k = 125$) with the GPI. Therefore, we control for these indexes in our analyses.

For democratic development, we used indicators of political rights and democracy-related indicators (taken from Van Hemert, Van de Vijver, & Poortinga, 2002). The strongest correlations with GPI were observed for levels of democracy (Inglehart, 1997; $r = -0.71; k = 39$) and the Human Rights Index for rights and freedoms (Humana, 1986; $r = -0.48; k = 82$). Therefore, we control for these two indicators in our analyses.

Finally, corruption as an indicator of lack of effective institutions has been measured by Transparency International (2008: www.transparency.org). It is based on independent sources comprising surveys and expert ratings measuring the extent and frequency of corruption in public and political life in each country. We used the average indicator of perceived corruption between 1988 and 1992, as calculated by Van Hemert et al. (2002). It correlated $-0.65$ ($k = 54$) with global conflict as measured by the GPI. Therefore, we control for it in our analyses.

RESULTS

Relation Between Values and GPI

Table 2 shows the zero-order correlations (please note higher values for GPI indicate lack of peacefulness).

Hypothesis 1a predicted that hierarchy is associated with lack of peace. As predicted, hierarchy correlates strongly positively with the GPI. Hypothesis 1b proposed a negative link between egalitarianism and GPI. This hypothesis was also supported as egalitarianism correlated negatively with absence of peacefulness. Hypothesis 2a predicted a positive relation between lack of peace and mastery. Mastery in the teacher sample—but not in the student sample—is positively related to lack of peace, thereby partially
supporting Hypothesis 2a. Hypothesis 2b predicted that harmony would be negatively related to lack of peace. This hypothesis was consistently supported because higher harmony is strongly negatively related to GPI.

Hypothesis 3a predicted a positive relation between embeddedness and the absence of peace. As predicted, embeddedness is positively related to lack of peace. Hypothesis 3b, which predicted that intellectual autonomy correlates negatively with GPI, was also confirmed. Unexpectedly, affective autonomy was also significantly negatively related to GPI, with the link being somewhat stronger using the student value indicators.

Examining our overall Hypothesis 4, which predicted an integrated pattern of relations increasing and descending as we move around the value circle, we developed a planned contrast (see Fischer, 2006; Sagiv & Schwartz, 1995) based on the circular nature of the value structure. Converting the expected strong, medium, and weak relations between GPI and values into numerical values, we assigned a contrast weight of 1 to hierarchy, .8 to mastery, −.2 to affective autonomy, −.5 to intellectual autonomy, −1 to egalitarianism, −.8 to harmony, and .5 to embeddedness. Correlating these contrast weights with the observed correlations, we get a value of $r = .93$ ($p < .01$) for the teacher value scores and $r = .83$ ($p < .05$) for the student value scores. This is a strong support for our overall Hypothesis 4 that values are systematically linked to global peace.

### Testing the Robustness of the Value–GPI Link

We then tested how robust these associations are when controlling for economic, societal, and political development, as well as perceived corruption. We used partial correlations for this analysis.

First, controlling for economic development, the partial correlation with harmony ($r_{\text{partial}} = -.44, p < .01$) and hierarchy ($r_{\text{partial}} = .32, p < .05$)
were significant when using the teacher scores. Using the student scores, partial correlations with harmony ($r_{\text{partial}} = -0.43$, $p < .01$), hierarchy ($r_{\text{partial}} = 0.37$, $p < .01$), and intellectual autonomy ($r_{\text{partial}} = -0.29$, $p < .05$) remained significant.

Second, controlling for societal development, we found the effect for harmony was significant when using both teacher ($r_{\text{partial}} = -0.29$, $p < .05$) and student ($r_{\text{partial}} = 0.37$, $p < .01$) data. Similarly, the effect for hierarchy was still significant in both data sets (teacher: $r_{\text{partial}} = 0.28$, $p < .05$; student: $r_{\text{partial}} = 0.38$, $p < .01$).

Third, controlling for political development, harmony ($r_{\text{partial}} = -0.46$, $p < .05$), embeddedness ($r_{\text{partial}} = 0.41$, $p < .05$), and intellectual autonomy ($r_{\text{partial}} = -0.46$, $p < .01$) were still significant when using the student scores. For teacher values, embeddedness was still significantly correlated with GPI ($r = 0.42$, $p < .05$).

Fourth, controlling for corruption as a lack of effective institutions using teacher values, harmony ($r_{\text{partial}} = -0.53$, $p < .001$), hierarchy ($r_{\text{partial}} = 0.37$, $p < .05$), and intellectual autonomy ($r_{\text{partial}} = -0.30$, $p < .05$) were still significant. For student scores, the correlations with harmony ($r_{\text{partial}} = -0.54$, $p < .001$), hierarchy ($r_{\text{partial}} = 0.49$, $p < .001$), and intellectual autonomy ($r_{\text{partial}} = -0.37$, $p < .05$) were still significant.

Finally, controlling for all these variables simultaneously, the following correlations were still significant: harmony (student: $r_{\text{partial}} = -0.47$, $p < .05$; teacher: $r_{\text{partial}} = -0.51$, $p < .01$), intellectual autonomy (student: $r_{\text{partial}} = -0.39$, $p < .05$), and mastery (student: $r_{\text{partial}} = -0.99$, $p < .01$; this unusually high value is due to suppressor effects because the control variables are highly intercorrelated).

Exploration of Interaction Between Societal Development and Values

We included an additional research question concerning the relation between societal development and values on GPI. The most appropriate technique for testing interactions between continuous variables is to use multiple moderated regression (Aiken & West, 1991; Cohen, Cohen, West, & Aiken, 2003). We followed standard procedures by first entering sample mean-centered values and societal development (measured as HDI in 2000) and then entered the interaction between the two mean-centered indicators in Step 2 (Aiken & West, 1991). A significant interaction term indicates that the value–GPI relation depends on the level of societal development. We report $\Delta R^2$ estimates to provide an indicator of how much additional variance is explained by the interaction over and above the main effects of values and HDI. To examine and understand the nature of the significant interaction, we plotted the interactions using modgraph (Jose, 2008).
at the mean and 1 SD above and below the mean for the predictor and moderator variable (see Aiken & West, 1991). We conducted this analysis for both teacher and student data sets.

The interaction was significant for embeddedness (teacher: $\Delta R^2 = .06$, $B = .14$, $p < .05$), harmony (student: $\Delta R^2 = .05$, $B = -.10$, $p < .05$; teacher: $\Delta R^2 = .06$, $B = -.12$, $p < .05$), and affective autonomy (student: $\Delta R^2 = .05$, $B = -.11$, $p < .05$; teacher: $\Delta R^2 = .05$, $B = -.13$, $p = .05$). The interaction with embeddedness was marginally significant using the teacher scores ($\Delta R^2 = .04$, $B = .16$, $p = .08$). The interaction with mastery was significant in the teacher sample only: $\Delta R^2 = .06$, $B = .15$, $p < .05$. Figures 1 to 3 show the relation using the teacher values. Figure 2 shows the relation between embeddedness and GPI depending on economic development (HDI in 2000). In highly developed countries, embeddedness is positively associated with higher GPI (i.e., less peace), whereas in less developed countries, embeddedness shows a negative relation with GPI (i.e., embeddedness is associated with more peacefulness). Figure 3 shows the interaction between harmony and economic development. The strongest relation is observed in highly developed countries. Here, greater harmony among teachers is associated with a lower GPI (i.e., more peacefulness). In less developed contexts, the relation is flat, indicating that values are not systematically associated.

FIGURE 2 Interaction between societal development (Human Development Index 2000) with harmony (teacher score) on Global Peace Index (GPI; larger values indicating lack of peace).
FIGURE 3  Interaction between societal development (Human Development Index 2000) with embeddedness (teacher score) on Global Peace Index (GPI; larger values indicating lack of peace).

FIGURE 4  Interaction between societal development (Human Development Index 2000) with affective autonomy (teacher score) on Global Peace Index (GPI; larger values indicating lack of peace).
with the GPI. Figure 4 shows the relation of affective autonomy with GPI, depending on economic development. The pattern is the mirror image as observed for embeddedness. In highly developed contexts, greater affective autonomy is negatively associated with the GPI (indicating greater peacefulness if affective autonomy is high). In contrast, in less developed countries, greater affective autonomy is associated with higher GPI scores, indicating less peace and more direct violence. The patterns are identical for the student scores. The effect for mastery in the teacher sample is the opposite as found for harmony (stronger relations with mastery in less developed contexts).

**DISCUSSION**

Our analysis shows that societal values are systematically related to a measure of societal (lack of) peacefulness. How a society deals with internal and external conflict, then, is related to prevailing value orientations within that society. Even when controlling for variables that are conceptually and strongly related to both values and the peace indicator, values still emerge as significant correlates. Three values, in particular, are consistently related to global peace—namely, harmony, hierarchy, and intellectual autonomy—relations that are empirically robust and stable. Societies valuing harmony with nature are less likely to experience strong internal and external conflict as are those in which intellectual autonomy values—indicating greater tolerance of diverse opinions—are strongly endorsed. Finally, a higher endorsement of values related to authority, wealth, and social power—hierarchy—is associated with more internal and external conflict.

This study contributes to the literature on international conflict by demonstrating an empirical link between values endorsed by two segments of a population—namely, teachers and students. Pilisuk and Zazzi (2006) argued that values and beliefs of the elite are important for driving conflict. Our analysis shows that these values disseminated within a society are equally important for the presence or absence of peace. Obtaining such results for teachers and students is important because of the position of them within a society. Teachers are important transmitters of societal values, as educators of future generations (Schwartz, 1994). Students, on the other hand, are typically one of the most politically active groups within society and form its future political and economic elite. Hence, the value levels of these two groups provide important insights in the overall political and ideological climate of a society. Obviously, the results are correlational, so we cannot say anything about the direction of the causation (but, see the later discussion for some tentative applications of the current patterns). Certainly, future research should examine these links.
using other groups, including general population samples and political leaders.

Furthermore, our analyses also show some interesting and intriguing interaction patterns. First, the aforementioned link between harmony and GPI is strongest in highly developed societies (Figure 2). This implies that a certain level of development needs to be met for harmony values to be associated with political actions of peace. Hence, societal development is a boundary condition for this relation between harmony values and GPI. The lowest ranking countries in our sample were Nigeria, Zimbabwe, India, Ghana, Namibia, Indonesia, Egypt, and Bolivia. Among these countries, harmony is not consistently associated with GPI.

Second, we also found a consistent interaction with two value types that did not show a strong direct link to peace—namely, affective autonomy and embeddedness. The former value is related to a free expression of emotions and feelings, and the latter with a concern for fitting into social groups, constraining actions that might interrupt the status quo and harmonious relationships in a society. The interaction pattern shows that the effects of social development are most discriminating between societies where individuals are free to express themselves and least embedded in groups.

How can we make sense of this pattern? Perhaps in societies that face difficult living conditions, but where people are concerned with maintaining harmonious relationships in groups and are less concerned with their emotional expression (of grievances), political actions are more peaceful. In contrast, in less developed societies in which individuals are free to express themselves and are not strongly embedded in social groups, indexes of peace are lower. We argue that these effects demonstrate that societal development is crucial for maintaining peaceful relationships within and across societies. At the same time, the patterns suggest that it is individualistic societies that are more prone to engagement in military actions if societal development is low. We propose that strong communal orientations within a society can be a buffer, especially if societal development is not adequate. In contrast, in more developed societies, less group orientation and greater acceptance of individual expression becomes more strongly related to peacefulness. Therefore, individual–group relationships are linked to global peace but are dependent on the resources available to individuals within a society.

The findings are also interesting because they point to both direct and indirect relations between values and global peace, which has implications for both theory and applications. In line with social dominance orientation, as well as analyses of political elites, values of hierarchy are directly related to peacefulness. At the same time, societal-level tendencies of dealing with individual–group relationships are not directly related to peace, but depend
on societal development. Therefore, this analysis shows that identifying
cultures of violence, caring, or peace is multifaceted and depends on the
dynamic interplay between a number of factors, including the economic
development of a society.

Different values showed both stronger and weaker relations across high and
low societal development. This implies that some values will only become
important for societal-level violence once basic needs are met, whereas other
values will relate more strongly to peacefulness of a society in dire situations.
The current pattern suggests that values of harmony (and mastery) become
important once basic needs are being met. One aspect of peace education has
been to engage in value transformation to get individuals and groups to engage
in more peaceful conflict resolution. Stressing harmony values through such
education campaigns without meeting basic demands for survival and
well-being of individuals is not going to be effective. In contrast, values related
to individual–group relationships become more important in socioeconomically
stressful situations. It appears that when basic living conditions are not
being met, it may be beneficial to emphasize and support a community orienta-
tion, compared to an affective expression of one’s desires and demands. In con-
trast, once living standards increase, group-oriented values might be less
important, and expression of personal desires and needs could be encouraged.
The interactions point to some interesting avenues for addressing changes in
value climates that could result in reduction of political violence.

One caveat with respect to these analyses is that the data is cross-sectional
and, therefore, we cannot draw any causal inferences. A second issue is that
there is a notable time-lag in that the value data predate the GPI. Neverthe-
less, value orientations measured up to two decades prior to the current
measure of global peace still showed strong correlations. This provides some
evidence of the strength of the reported link, but also calls into question to
what extent values can be changed—an important concern for the work of
peace psychologists.

The issue of value change itself is controversial. Hofstede (1980)
and Schwartz (1994, 2006b) argued that values are more or less stable
and change only minimally over a long periods of time. Such a position
would be at odds with attempts to proactively change societal climates
toward values more conducive to peaceful relationships. In contrast to this
long-term stability hypothesis, Inglehart and colleagues (Inglehart &
Baker, 2000; Welzel, Inglehart, & Klingemann, 2003) demonstrated that
values do change over some decades, with the causal factor being eco-
nomic and social development associated with modernization and postmo-
dernization. With increasing economic resources available to individuals, a
shift occurs in traditional societies toward more materialistic values. Once
material needs are satisfied, a second shift occurs toward postmaterialistic
values (egalitarianism, harmony). These value shifts are then predicted to
result in institutional change (see Welzel et al., 2003). These shifts can be
reversed if material situations deteriorate. Hence, these processes have the
potential to explain why we were still able to find these correlations across
a time lag of two decades. Value change and institutional change are rela-
tively slow, but systematic toward more egalitarian and harmonious values
and more democratic and peaceful societies, explaining why we can
observe stable relations over time.

The dynamic links between economic conditions, dominant values, and
peacefulness are probably the most intriguing issues to be explored in future
research. First, it would be interesting to test the value–peacefulness link
vis-à-vis economic development within specific conflict contexts over a
longer period of time. Comparing different conflicts with varying economic
conditions and value orientations can provide further insight into this. A
second avenue is to expand country-level analyses. For example, a short
version of the SVS is now included in World Value Survey (see www.
worldvaluesurvey.org). With more waves of representative samples available
in the future, it will be possible to relate values and other country-level
indicators, such as the HDI and GDP, over a longer time-period with
country-level indicators of peacefulness or conflict such as disarmament, mili-
tary expenditure, number of conflicts, educational expenditures, numbers of
actively working nongovernmental organizations engaged in peacebuilding
and education, and so on. This will allow for a longitudinal assessment that
can shed light on the causal relations that we have speculated on.

PRACTICAL IMPLICATIONS FOR PROMOTING PEACE

These processes also have an important practical component. Our analysis
shows that economic and development indicators consistently correlate
higher with GPI than values (although values still added something over
and above these control variables). As a consequence (and assuming a causal
relation; see Welzel et al., 2003), changing economic conditions has a stron-
ger impact on peace than changing values. Furthermore, given that improv-
ing economic and social conditions result in desirable value changes (greater
harmony and intellectual autonomy, lower hierarchy), peacebuilding and
peacekeeping may need to focus more on economic and social development.

Further, we believe that our findings, in conjunction with related work on
value change, justify some consideration by politicians and policymakers.
The correlations suggest that changing values priorities might provide one
opportunity for positive political change. Our previous speculations also
indicate some intervention strategies depending on societal development.
trajectories. Strengthening these values in society could have important side-effects for a culture of peace. Future research needs to examine the causal direction of the value–conflict link at the society level, but this analysis shows that this is an avenue worth exploring in further detail. Therefore, orientation toward values is important, but is secondary to the priority that should be given to economic and societal issues of development.

CONCLUSION

Answering our initial question, there is a link between values and peacefulness of societies. Values prevalent within a society are related to indicators of peace and conflict. Our analyses also show that understanding peace depends on multiple indicators that are dynamically linked. Values are part of this complex relation, and attention to societal-level values can help us to understand peace and conflict globally.

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BIOGRAPHICAL NOTES

Ronald Fischer is a Senior Lecturer at Victoria University of Wellington and a Fellow of the Centre for Applied Cross-Cultural Research. His research broadly focuses on cultural issues in social, organizational and political contexts, in particular the effects of cultural values, norms and practices at individual and societal level-of-analysis. He is an associate editor of the Journal of Cross-Cultural Psychology.

Katja Hanke studied psychology at the University of Göttingen in Germany. She is currently a PhD candidate in cross-cultural psychology at Victoria University of Wellington (VUW) in New Zealand. She is affiliated with the Centre of Applied Cross-Cultural Research (CACR) at VUW. Her main research interests are cultural and cross-cultural approaches to intergroup forgiveness, peace psychology, intercultural communication and training.
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