

Assessing the Basis for a Culture of Peace in Contemporary Societies*

JOSEPH DE RIVERA

Department of Psychology, Clark University

The culture of peace promoted by the United Nations may provide a set of global norms that are needed for a peaceful world. However, the bases for the culture that is advocated rest on a liberal conception rather than empirical data. Does empirical evidence support the coherence of these bases, or are there flaws in how the culture of peace is conceived? In an attempt to answer this question, objective indicators were selected to represent each of the presumed bases for a culture of peace. These indicators were correlated with one another, and a factor analysis examined the extent to which the data cohered and could be accounted for by a single 'peacefulness' factor. The results suggest that four different peace factors need to be distinguished. These are correlated with different indices of peace and may be used to assess the relative peacefulness of different nation-states. The data, together with a consideration of the literature on peaceful cultures, suggest that a global culture of peace may require the development of an additional base that is not mentioned in the United Nations' program of action.

Introduction

In 1999, the General Assembly of the United Nations launched a program of action to build a culture of peace for the world's children (UN resolution A/53/243). Based on earlier work by UNESCO, the resolution clearly had much more in mind than the 'negative peace' reflected by an absence of war, civil disturbance, and murder. Rather, it also envisaged a 'positive peace' of justice, tolerance, and plenty. This intention was clearly manifested in the program of action the delegates designed to bring about a culture of peace. This program addressed

eight different bases for a culture of peace. These were as follows:

- (1) Education (and especially, education for the peaceful resolution of conflict)
- (2) Sustainable development (viewed as involving the eradication of poverty, reduction of inequalities, and environmental sustainability)
- (3) Human rights
- (4) Gender equality
- (5) Democratic participation
- (6) Understanding, tolerance, and solidarity (among peoples, vulnerable groups, and migrants within the nation and among nations)
- (7) Participatory communication and the free flow of information
- (8) International peace and security (including disarmament and various positive initiatives)

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It may be observed that these components unite the major social movements of our time: the movements for peace, human rights and tolerance, gender equality, democracy and open communication, global economic justice, and a sustainable environment. Implicit in the uniting of these components under the rubric of a culture of peace is that they form a coherent whole, a cultural basis for peace as contrasted with the culture needed for war. However, as the concept made its way through the UN establishment, there was no rigorous examination of this assumption. Further, the intellectual underpinnings of the concept became somewhat obscured by ideological conflict and the necessity for political compromise. Yet, although the concept today may be more a political vision than an analytic tool, it is a concept that stems from serious reflection and merits scholarly attention. The question addressed in this article is whether the bases articulated by the UN resolution form a coherent set of necessary and sufficient bases for a culture of peace. Does the concept of a culture of peace provide a realistic cultural goal? Might it be used to assess the degree to which different nations possess a culture of peace? Might it be used as an analytic as well as a political concept?

History of the Concept

The concept of a culture of peace flows out of UNESCO's work on how different societies develop a diversity of cultural arrangements to solve the problem of how people can live with one another and cope with environmental challenges. The preamble of the UNESCO constitution observes, 'a peace based exclusively upon the political and economic arrangements of governments would not be a peace which could secure the unanimous, lasting and secure support of the peoples of the world, and that peace must therefore be founded, if

it is not to fail, upon the intellectual and moral solidarity of mankind' (UNESCO, 1945/2002: 7).

A cultural arrangement that resolved conflicts with nonviolent as opposed to violent means, a 'culture of peace' that was contrasted with a culture of war and could be developed by educational initiative, was first described by MacGregor (1986). His work nicely complemented the Seville Statement on Violence, which concluded that biology does not condemn humanity to war and observed that 'the same species who invented war is capable of inventing peace' (Adams, 1989: 113). Together, these works became the basis for discussions at the 1989 UNESCO International Congress held in Côte d'Ivoire. That congress recommended that UNESCO 'help construct a new vision of peace by developing a peace culture based on the universal values of respect for life, liberty, justice, solidarity, tolerance, human rights and equality between men and women' (UNESCO, 1989: 51).

This vision appealed to Federico Mayor, the UNESCO Director-General, who observed that it might 'provide the needed solidarity, both intellectual and moral, to unite people working around the world for justice and peace and to inspire hope and persistence for the common task' (Adams & True, 1997: 15). Promoted by UNESCO, the concept of a culture of peace, somewhat modified by political forces within the UN, eventually became the basis for the General Assembly declaration (see <http://www.culture-of-peace.info/history/introduction.html>).

To some extent, then, the concept of a culture of peace was initially conceived as an almost analytic concept that could be contrasted to a culture of war and, to some extent, as a strategy for political action – a way to provide a superordinate goal that could unify people working for peace and justice. As a strategic concept, it has been

successful in beginning a social movement that is unique in involving the participation of governments, nongovernmental organizations, and individuals, a success that may be best understood by examining the hundreds of actions for a culture of peace reported on the UNESCO website (<http://www3.unesco.org.iycp>). However, as a concept for the social sciences, it is only beginning to receive systematic academic consideration (de Rivera, 2004). There has been little examination of its conceptual unity or the development of theory linking the concept to the environment in which a culture of peace might thrive.

It should be noted that the conceptualization and the description of the bases for such a culture are somewhat different from a description of the environmental conditions that facilitate or hinder the establishing of a peaceful culture. Geographical considerations, such as the presence or absence of natural defenses, affect the necessity for a standing army and probably affect the development of the internal peacefulness of a culture. Historical circumstances leading to a state in which one ethnic group has between 45% and 90% of the population appears to increase the probability of civil war (Collier & Hoeffler, 2002). Likewise, economic conditions can be influential. For example, given contemporary market influences, there is a relationship between the probability of civil war and the degree to which a nation is dependent on primary commodities exports (Collier et al., 2003). Such objective conditions influence the likelihood of internal strife and hence the peacefulness of a society and the sort of culture it may develop. Yet, a society's culture also has a degree of independence from such external circumstances and a quality of peacefulness that is based on internal norms and ways of conducting affairs. The concept of a culture of peace may be regarded as part of the endeavor to find concepts that may help us

achieve a more humane world, and, before considering it in more detail, it is instructive to relate it to another concept of this kind: human security.¹

Human Security

The concept of human security goes beyond the concept of national security in two important aspects. It suggests attention to the security of all people rather than simply the security of those within a given nation-state, and it enlarges the scope of security to refer to far more than protection from enemy attack. If we include security from disease, starvation, and poverty, the concept has the potential to attract both those interested in issues of national defense and those interested in economic development.

At the present moment, there is no agreement on exactly what the concept should encompass or how it should be measured. At its narrowest reach, it may simply be used to refer to security from war and crime. Thus, Owen (2002) notes that the Centre for Human Security at the University of British Columbia proposes that a crude but pragmatic measure of human security could be achieved by simply summing deaths from armed conflict and homicide (per 100,000 population). However, Owen points out that it would be relatively easy to include developmental concerns by simply extending

¹ There is a strong compatibility between the movement to develop a culture of peace and the movement to support an Earth Charter with its focus on the interdependence of all life and its call for peace, economic and social justice, democracy, and ecological integrity. In many respects, the Earth Charter may be regarded as a grass-roots attempt to establish the sort of culture of peace called for by the UN. Its symbolic focus on the interdependence of peoples and their common earth provides a sort of spiritual coherence that is somewhat missing in the UN statement. Its weakness lies in its absence of state connections and, although the Earth Charter refers to a culture of peace, it would seem desirable for its organizers to establish closer links with the UN initiative. The values expressed in the charter are virtually identical to those expressed in the UN initiative, and any evaluation of progress towards one should apply to the other.

the measurement to include the sum of deaths from disasters and disease. This approach attempts to avoid the problem of how to weight different measures of security by simply using deaths per hundred thousand, but there are so many more deaths from disease that a decision would still have to be made as to how much to weight such deaths.

At its broadest reach, human security may be defined as including job, food, and health security, along with personal security from violence; the environmental security provided by adequate water supplies, clean air, and the management of natural disasters; the 'community' security provided by being able to safely have an ethnic identity; the political security of having human rights and press freedom; and the 'global' security that can only be provided by international cooperation to control factors such as population growth, excessive migration, and terrorism. These were the components proposed in UNDP (1994). The authors of that report attempt to relate human security to the even broader concept of human development. They define development as the process of widening the range of people's choices and see security as meaning that the choices provided by development can be safely exercised and will not be lost.

Although it would be difficult to quantify the broader UNDP definition of security, King & Murray (2002) have proposed that the essence of that definition could be measured by calculating the number of years of future life that a human could live without falling below an unacceptable threshold in *any* of a number of agreed-upon key domains of well-being. Thus, they propose that an individual could be regarded as secure in a year that he or she was not in dire poverty (had an income of over \$365 a year); had a minimum degree of health (would not die in the course of the year); had some political freedom (could vote in at least one fair

election); and had some degree of education (five years of schooling). The advantage of such a proposal is that it offers a straightforward commonsensical definition that solves the problem of how to weight the different elements that contribute to security. Its disadvantage is that it requires data that are currently difficult to acquire and does not consider obvious psychological components of security such as memories of trauma or expectations of suffering in future years. Such considerations suggest that it might be fruitful to develop and include subjective measures of security. It also should be noted that current measures do not include a nation's impact on the security of humans living outside the nation (such as the number of foreign deaths caused by wars, contributed to by international weapons sales, or forestalled by aid).

The strength of the concept of human security lies in its potential for encouraging governments to consider policies that enhance human well-being. In this regard, it offers far more promise than the concept of national security, and it should be noted that the governments of Canada, Japan, and Norway have used the concept in the formulation of foreign policy. Human security concerns are reflected in such endeavors as the efforts to ban the use of landmines, establish an international court, and restrict the use of child soldiers. The foreign ministers of 12 countries are now regularly meeting to consider human security concerns and have established a human securities network (<http://www.humansecuritynetwork.org/menu-e.php>).

Relating Human Security to Culture of Peace

How may we relate the concepts of human security and culture of peace? To begin, it may be noted that the way in which security is defined appears to reflect the extent to

which a culture of peace exists. Definitions in terms of national security essentially reflect the warlike aspect of cultures, while the broadest definitions of human security reflect the awareness of interdependence that is characteristic of cultures of peace. In fact, at its broadest reach, the concept of human security mirrors Galtung's (1969) formulation of peace as involving the absence of violence, where violence is conceived as any influence that prevents humans from actualizing their potential. Galtung's focus on peace as the absence of a widely conceived violence attempts to provide a challenging but non-utopian approach towards attaining a more humane world, a positive and not simply negative peace that certainly characterizes a crucial aspect of a culture of peace.

Since the concept of human security has the advantage of being delimited by its reference to a common human need and has a pragmatic aspect that is appealing to common sense, it might be thought more useful in characterizing the goal of those who wish to further human betterment. However, the concept has two important limitations. First, although useful for directing the actions of governments and calling attention to the responsibility of states, it rather ignores the behavior of peoples and the condition of their civil society and culture. Second, even when it is broadly defined, security is only one aspect of peace. Peace also implies the presence of harmony or a wholeness that supports the opportunity for human fulfillment, and it may be argued that there are some advantages to keeping a utopian vision of peace as more than security or the absence of generalized violence or poverty. The advantage of the concept of a culture of peace is that it calls attention to the fact that security requires more than a benign state and necessarily depends upon how people relate to one another, and it provides a vision as to how these relationships should be. Thus, it seems important to

develop both concepts and systematically relate them to each other. Although security within a nation-state might be temporarily attained without a culture of peace, it would appear that overall human security depends on the presence of a culture of peace. However, state policies that promote human security will also promote a culture of peace.

The conceptual differences between the two concepts are reflected in how we might measure national differences in the extent to which human security and culture of peace exist. Since human security may be conceived as involving a single human need, it can potentially be assessed by a single measure. Such a measure can use either an objective standard involving preventable deaths or minimal thresholds of economic, health, and political security, or a subjective standard of felt security. However, culture of peace is a more holistic concept. As defined by Boulding (2000a: 196), it is 'a mosaic of identities, attitudes, values, beliefs, and institutional patterns that lead people to live nurturantly with one another and the earth itself without the aid of structured power differentials, to deal creatively with their differences, and share their resources'. The assessment of such a culture may require measuring a number of different dimensions.

Coherence and Viability of the Concept

The UN resolution (A/RES/52/13) defined a culture of peace as involving values, attitudes, and behaviors that (1) reject violence, (2) endeavor to prevent conflicts by addressing root causes, and (3) aim to solve problems through dialogue and negotiation. It proposed that such a culture would be furthered by actions promoting education for peace and the other putative bases: sustainable economic development, human rights, gender equality, democratic participation, tolerant solidarity, open communication, and

international security. However, the links between the concept and the bases were more presumed than specified.

Some of these links are articulated in an earlier publication (UNESCO, 1995). The rejection of violence is directly addressed by the educational base and is implicit in furthering human rights and gender equality. The prevention of conflict by addressing root causes is clearly advanced by furthering the bases of sustainable development, tolerant solidarity, and international security; and the aim of solving problems by dialogue and negotiation is linked to the bases of education, open communication, and democratic participation. However, this earlier work discusses some psychological and economic conditions necessary for the success of a culture of peace. These conditions and the internal dynamics of such a culture of peace appear to have become obscured by the political process of achieving consensus within the UN establishment. Hence, it is unclear if the bases really cohere or reflect different dimensions, or simply constitute a list of what is required to develop a culture of peace. Further, as a holistic concept, each of the bases involves the underlying values, attitudes, and behaviors of a culture of peace. Thus, they might be regarded as outcomes that reflect a culture of peace as well as bases for such a culture, and each may be seen as affecting and affected by every other base.

On the one hand, it may be argued that the eight aspects promoted by the UN resolutions are based on a cultural coherence such that we could view each part as connected to every other part. That is, we might expect any given base to relate positively to each of the other seven bases and to constitute a positive peacefulness. For example, one presumes that education is related to development, and development to democracy, and certainly a functioning democracy clearly depends on open communications,

and open communication, democracy, and development seem to require peaceful norms. As Murshed (2002: 387) observes, 'Economic and human development cannot occur without a large measure of social stability, which in turn requires the nurturing of institutions for nonviolent conflict resolution.'

The conceptualization of a culture of peace advanced by Adams & True (1997) supports this view. They contrast the concepts of culture of peace and culture of war and point out that each of the various bases of a peace culture may be viewed as the diametric opposite of the bases characteristic of a culture of war. Thus, men and women participating democratically, using open communications and tolerance to work for equality and sustainability, may be contrasted to a culture of war where male dominance hierarchies utilize controlled communications and intolerance to produce inequality.

Further, there is empirical support for a positive relationship between many of the 28 possible pairs of the eight presumed bases. For example, Rummel (1995) has shown that democracies have a better record of human rights in that they engage in far fewer democides. It is claimed that empirical studies demonstrate that democracies are less apt to be engaged in overt warfare (MacMillan, 2003). When there is more gender equality, there is less interstate violence (Caprioli, 2000) and more domestic tolerance (Caprioli & Trumbore, 2003). And Collier et al. (2003) report that aspects of economic development such as per capita income and its growth reduce the chance of civil war.

On the other hand, factor analyses of national characteristics suggest that economic development, the extent of internal conflict, and the extent of external conflict behavior are separate characteristics (Rummel, 1963, 1966). It may be argued

that economic development is often associated with an increasing disparity between rich and poor, that it is certainly not self-evident that developed nations will be less belligerent to others, and that a culture of peace may require aspects that are not simply the opposite of a culture of war. There is a degree to which the UN's conceptualization of a culture of peace is based more on liberal ideology than empirical evidence, and both political 'realists' and cultural anthropologists might take exception to some of its claims.

Political realists might argue that a culture of peace is an oxymoron because peace is ultimately secured by the threat of violence. In fact, Adams (2001) observes that delegates from a number of powerful nations objected to the UN resolution to develop a culture of peace. One presumes they objected because of the implication that we currently live in a culture of war, or that the contemporary exercise of power is not necessary to maintain peace. In a related vein, political sociologists, such as Simmel (1904), might see conflict as so integral to modern society that a culture of peace would not be seen as a realistic goal, but rather as a phase in a dynamic system alternating between the poles of violence and peace.

Conversely, anthropologists might well assert that peaceful cultures *do* exist but are not adequately described by the UN initiative. Thus, empirical investigation of peaceful cultures reveals a somewhat different configuration of cultural characteristics from that emphasized by the UN. The examination of peaceful cultures suggests that the core of their belief systems is a belief that they (the people in question) *are* fundamentally peaceful. That is, they are self-defined as peaceful and committed to being peaceful. Further, they avoid assertive, competitive, self-aggrandizing behavior, and they treat their children kindly (Kemp & Fry, 2004). The importance of child-rearing

practices is also suggested by Ross's (1993) examination of the differing amounts of conflict in 90 pre-industrial societies. His study suggests that it may be important to discriminate between the degrees to which societies have internal and external conflicts. Although these two aspects of conflict are related (the correlation in his sample was +.39), he shows that overall violence is best predicted by psychocultural variables, such as the nurturance of children, that are neglected as bases in the UN initiative. Structural variables (such as the number of intergroup ties affecting cohesion) are more related to whether the violence is internal to the society or directed to an out-group.

In the face of such criticism, an advocate of the UN initiative might take a historical perspective and argue that history suggests that the establishment of contemporary peace requires a global civil service with an agreed-upon set of global norms (Howard, 2000). Advocates may justly claim a bureaucratic triumph and assert that the proposed culture of peace provides such a set of norms. However, as Howard points out, leaders advocating such norms may not have the support of the people of their society. Moreover, as Howard fails to point out, supporting such norms may not be in the interest of the leaders of some powerful nations. Nevertheless, the concept provides a vision that goes beyond simple political approaches to peace, and those committed to developing a culture of peace hope that the program of action adopted by the United Nations can encourage nations, NGOs, and individuals to develop the bases of a culture of peace.

The fact that the UN's culture of peace is presented as a realistic cultural goal raises three academic challenges. First, the concept needs to be examined for its coherence and inclusiveness. Is the conceptualization in terms of eight bases an adequate conceptualization? Do the bases cohere to the

extent that we may assess a single dimension of peacefulness, or must we describe more than one dimension? If there are different dimensions, there are important implications for measurement, and we will need a theory that interrelates them. Second, given what we know about human nature, is the concept realistic or should we suggest changes in its conceptualization? Third, how might we begin to assess the relative peacefulness of the cultures of different societies? If we are able to devise ways of establishing the current peacefulness of different societies, we can assess progress towards the ultimate goal of a peaceful global culture. Although the making of invidious comparisons would be antithetical to the goal of creating a peaceful culture, a little healthy competition might be in order. Objective assessment might aid us in ascertaining the bases for more peaceful cultures. Without assessment, it is difficult to know whether particular policies are promoting progress.

Assessing the Peacefulness of Nations

The author is aware of two previous attempts to assess the overall peacefulness of different nations. Naroll (1983) argued that a society's quality of life depended on strong 'moralnets', primary groups that served as normative reference groups. He established that numerous social problems could be linked to weak moralnets that failed to support important values, and he suggested that the quality of life in different nations could be measured by indicators for six of these values. His study used life expectancy and suicide rate as indicators for the value of physical and mental health; social security and child abuse deaths for the value of 'brotherhood'; deaths in foreign wars for peace; homicide and deaths in civil strife for 'order'; press freedom ratings for 'variety'; and per capita Gross National Product

(GNP) and per capita contributions to science for the value of progress. He collected such measures for 12 economically developed nations that afforded good statistical data and, summing the standard scores for the six values, established that nations ranged in quality of life from Norway and Sweden (with overall standard scores of 550 and 542) through Denmark and the United States (with scores of 506 and 483) to Spain and Israel (with scores of 450 and 440). Although Naroll did not attempt to see if there was coherence among his indicators or establish a link between the strength of moralnets within each nation and the quality of national life, his study may be regarded as an early attempt to measure a sort of national culture of peace, and it seems worthwhile to compare his overall ratings with contemporary measures.

More recently, a set of sophisticated measures for the peacefulness of different nations has been reported by a team of Korean investigators. The Committee for the Culture of Peace (2002) has reported on three dimensions of peacefulness that were distinguished *a priori*: political, military-diplomatic, and socio-economic peace. The political peace index is based on past and current domestic political conflict, democracy, human rights, and political transparency. The military-diplomatic index is based on both past and current international conflict and the degree of current military mobilization. The socio-economic index is based on indicators for variables such as crime rate, economic stability, poverty, and economic inequality. Indices and information are available at <http://www.wpf.or.kr/English/publication.htm>. Analysis of the data from their sample of 74 nations reveals a strong correlation between the political and socio-economic indices (+.75). However, as might be expected from Ross's (1993) study of pre-industrial societies, there

are only moderate correlations between these (internal) indices and the (external) military–diplomatic index (+.32 and +.41 respectively). Investigation shows that there is a sizable correlation ($r = +.69$, $p < .01$) between the socio-economic index and Naroll's quality of life index, in spite of the fact that the latter was based on data gathered more than 20 years earlier.

The study reported here attempts to assess the coherence of the UN model by finding objective indicators for each of the model's components and seeing the extent to which such indicators correlate with each other and whether they form a unitary structure constituted by a single underlying factor. If a single factor is involved, we can easily assess the extent to which different nations are characterized by a culture of peace. If more than one factor is involved, it is important to consider how the different aspects of peacefulness might be conceptualized, assessed, and related to the dimensions of peacefulness measured by the Committee for the Culture of Peace.

Method

Sample of Nations

In order to be able to compare our analysis with the findings of the Committee for the Culture of Peace, we selected the same 74 nations used in their analysis. (These include all 12 of the nations used in Naroll's analysis.) The advantage of using these particular nations is that they afford relatively complete sets of economic and political data (the initial reason for their choice). A disadvantage is that the sample necessarily omits some of the poorest and most war-torn nations (because many of the datasets from these nations are incomplete).

Indicators

An attempt was made to select objective indicators for each of the eight bases for a

culture of peace. In some cases, the eight aspects clearly had different components and each component required a different indicator. In choosing indicators, a number of considerations were weighed. First, the indicator had to have clear face validity in that it would appear to have a direct relation to the aspect being evaluated. Second, data had to be available for a large number of countries. Third, indicators that used objective counts rather than subjective judgements were favored. The chosen indicators, together with some explanation and critical commentary, are described below. They follow each of the eight UN bases.

(1) **Education for Conflict Resolution**

The originators of the concept of culture of peace stressed the importance of an education specifically directed towards teaching nonviolent solutions for conflicts. However, as the concept became an overall umbrella for positive social change, the importance of general education became included. Indicators are available for the latter but not the former. Currently, there are no measures of the extent to which nonviolent education is being taught in different societies. Although there are many instances of classes in conflict resolution, programs to teach principles of negotiation and mediation, and training for the practice of nonviolence, we lack counts of such programs or any systematic comparisons of school curricula. Also, there do not appear to be any comparative studies of the cooperative, nonviolent norms that theoretically should be produced by such teachings. One indirect measure might be the extent of violent crime. Since nonviolent education would, hopefully, result in less violent solutions to personal problems and conflicts, it might be reflected in less violent crime. Although many factors affect crime rates, in the absence of a better measure, I have used a nation's homicide rate.

- General education – Adult literacy rate and percent GNP devoted to education from UNDP (2002: Table 1).
- Specific education for the peaceful resolution of conflict – Homicide rate from UNDP (2000: Table 26).

(2) **Sustainable Development** This base is composed of three components: economic development as a solution to poverty, the reduction of economic inequalities, and the sustainability of natural resources. Although, ideally, the three are positively interrelated, it seems clear that they have no necessary relationship. Economic development as a solution to poverty can be assessed by high per capita GDP, life expectancy, and literacy. Inequality can be assessed by the Gini index (which measures the extent to which income deviates from a perfectly equal distribution). Sustainability of development is much more difficult to assess. The UN publishes data on the restorability of water and forest resources and on the extent of recycling. However, these data are available only from economically developed countries. Data on CO₂ emissions are more generally available and clearly impact sustainability, but such emissions are an unwelcome by-product of development, and it is unclear how they should be weighted with development indices. In the absence of consensus about how sustainability should be assessed, CO₂ emissions are treated as an independent variable rather than included in the factor analysis.

- Economic and social development – GDP per capita and life expectancy at birth, from UNDP (2002: Table 1).
- Inequality reduction – Gini index of income inequality from UNDP (2002: Table 13). (A score of 0 represents perfect equality and a score of 100 complete inequality.)

(3) **Human Rights** Although there is no standard measure of human rights, a number

of investigators have made use of the political terror scale developed by Gibney & Dalton (1996). This scale is based on the ratings of judges who read the yearly reports of Amnesty International and the US State Department and code each report separately on a scale of 1 to 5. The first level is used to indicate a secure rule of law where there is no imprisonment for views, and torture and political murders are extraordinarily rare. The fifth level indicates extensive political imprisonment with murder, disappearance, and torture a common part of life that affects the entire population.

- Human rights – The average of the political terror scale ratings based on Amnesty International Reports from 1992–2002 were inverted so that a high number would represent high human rights. The yearly ratings may be obtained from <http://www.unca.edu/politicalscience/faculty-staff/gibney.html>.

(4) **Gender Equality** The United Nations reports a gender empowerment measure that includes a number of measures that compare the economic and political participation of women and men. However, this measure is highly correlated (+.87) with the much simpler measure of the percentage of women in parliament and would seem less sensitive to the possible impact of women on public policy.

- Gender equality – Percentage of seats in parliaments held by women, from UNDP (2002: Table 23).

(5) **Democratic Participation** It may be argued that democratic participation requires choices and that there must be opportunities both to run for election and to vote. Vanhanen's (2000) index of democratization is formed by multiplying the degree to which elections are contested

with the percentage of the population voting.

- Democratic participation – Index of democratization for 1998 from <http://www.prio.no/cwp/vanhanen>.

(6) Understanding, Tolerance, and Solidarity This base was originally conceived as referring to solidarity within the nation that was secured by tolerance rather than enmity towards those outside the nation. Although many factors are involved, it seems clear that the internal solidarity is reflected by the absence of the internal turmoil that generates refugees and displaced people, and it may be argued that tolerance towards outsiders is reflected in the acceptance of refugees. A more refined measure of tolerance might involve the ratio of refugees who are admitted to those who have applied, but these figures would be much more difficult to obtain.

- Understanding, tolerance, and solidarity – Refugees admitted minus refugees generated (including internally displaced people) as a fraction of total population, calculated from figures obtained from UNDP (2002: Table 20).

(7) Free Flow of Information Freedom House examines restrictions on both print and broadcast media and publishes press freedom ratings for different nations. These ratings are the sum of four scales that examine restrictive laws and regulations (rated from 0–15), political pressures and controls (0–15), economic influences over content (0–15), and repressive actions against journalists or broadcasters (0–10). Ratings for different years are available from the Freedom House website.

- Free flow of information – Freedom House press freedom ratings for 1999, from the Freedom House website, <http://www>.

freedomhouse.org/research/presssurvey. Although a high rating ordinarily signifies more restriction, here they are subtracted from 100, so that a high rating signifies more open communication.

(8) International Peace and Security The UN initiative clearly favors the disarmament of national military forces, and to some extent this may be assessed by the percentage of GDP a nation spends on its military forces. However, international peace is also hindered by arms exports and may be promoted by aid for development. Thus, an important measure of the degree to which a nation is contributing to international peace might be the ratio of a nation's arms exports to its development aid. Although such a measure can be applied only to economically developed nations, it proves to be highly correlated to a variable that is available for all nations: the extent to which the nation uses its military forces in international disputes. Thus, although a nation's military forces can be used for altruistic purposes, it seems probable that they are ordinarily used to secure a competitive national advantage. Frequency of military use may be calculated from a number of different data sources and is quite reliable. For example, since 1945, the number of times military acts were used as the primary technique for coping with foreign policy disputes, according to data from the International Crisis Behavior dataset (<http://www.icbnet.org>), correlates (.88) with the extent to which a nation displayed force in international disputes, according to data from the Correlates of War project (<http://cow2.la.psu.edu/>). These measures correlate (.91 and .92 respectively) with the ratio of arms exports to developmental aid calculated from UNDP (2002) figures ($N = 20, p < .000$).

- Disarmament – Military expenditure as a percentage of GDP, from UNDP (2002: Table 17).

- Use of military – The number of times military acts were used as the primary technique for coping with foreign policy crises from 1945 to 2001, calculated from data from the International Crisis Behavior datasets, version 4, available at <http://www.icbnet.org> from the Center for International Development and Conflict Management.

Statistical Analysis

The indicators were correlated with each other and subjected to a multiple component factor analysis. Missing values were excluded pairwise. A varimax rotation with an orthogonal solution was used for factors with eigenvalues greater than 1. Loadings less than .30 were eliminated from consideration. Individual indicators and factors (with missing values replaced with means) were then correlated with the three World Peace Forum indices and other variables of possible interest.

Results

The factor analysis revealed four principal factors that accounted for 69% of the variance of the correlations among the

indicators. The loadings of the indicators on the factors are shown in Table I. They indicate the extent to which each indicator is correlated with each factor.

The first factor explains 38% of the variance. It might be termed a 'liberal development' factor, since it accounts both for variables associated with liberalism (press freedom, democracy, human rights, and gender equality) and for variables associated with economic development (per capita GDP, adult literacy, and life expectancy). However, since the factor scores of the nations correlate (+.71) with CO₂ emissions, the factor does *not* connote *sustainable* development.

The second factor, explaining 13% of the variance, has a strong positive correlation with homicide rate and economic inequality, and small but significant negative correlations with human rights and per capita GDP. It appears to underlie the lack of an important type of domestic peace and might be labeled 'violent inequality'.

By contrast, the third factor, explaining 9% of the variance, is associated with international military use and military expenditures. Factor scores correlate (+.53) with arms exports (N = 48, $p < .000$). The factor

Table I. Component Matrix of Indicators (Orthogonal Rotation)

<i>Indicators</i>	<i>Factors</i>			
	<i>Liberal development</i>	<i>Violent inequality</i>	<i>Violent means</i>	<i>Nurturance</i>
Education expenditure				.763
Homicide rate		.878		
GDP per capita	.809	-.319		
Life expectancy	.775			
Adult literacy	.745			
Gini inequality index		.770		
Human rights	.666	-.354		
% women in parliament	.638			.406
Democracy index	.732			
Tolerance for refugees				.754
Press freedom	.818			
Military expenditure			.830	
Military use			.816	

might be considered to reflect the absence of international or 'external' peace, but factor scores also correlate (+.50) with the number of people who are incarcerated in a nation ($N = 38, p < .001$). Therefore, it might be better labeled 'violent means'.

The fourth factor, also explaining 9% of the variance, involves aiding rather than creating refugees, greater expenditures for education, and, to some extent, the percentage of women in parliament. It is not significantly correlated with GDP ($r = .11$) and might be labeled a 'nurturance' factor.

The correlations between the individual indicators and factors and the Committee for the Culture of Peace indices are shown in Table II. It may be seen that the 'liberal development' factor is significantly correlated with all of the indices, but it has a particularly high correlation (.81) with the socio-economic index. The 'violent inequality' factor has a low but significant negative

correlation with the political peace index ($-.34, p < .01$); the 'violent means' factor reveals a high negative correlation ($-.73$) with the diplomatic-military peace index; and the 'nurturance' factor has low but significant positive correlations with the political and socio-economic indices (.30 and .31 respectively).

Discussion

In part, the failure to find a clear single factor among the bases for the culture of peace may be due to the imperfection of the indicators that were used. Certainly, we need better measures for education for peace. Our indirect measure, homicide rate, seems more related to income inequality than education. And, it would be useful to have other measures for the degree of tolerance that exists within a society. As better indicators are developed, we will be better able to

Table II. Correlations of Indicators with Committee for the Culture of Peace Indices

<i>Indicators/factors</i>	<i>Peace indices</i>		
	<i>Political</i>	<i>Military-diplomatic</i>	<i>Socio-economic</i>
Indicators			
Education expenditure	.44***	.02	.50***
Homicide rate	-.52***	.13	-.25
GDP per capita	.62***	.30**	.73***
Life expectancy	.54***	.24*	.75***
Adult literacy	.45***	.45***	.67***
Gini inequality index	-.35**	.04	-.28*
Human rights	.77***	.39**	.66***
% women in parliament	.49***	.41***	.64***
Democracy index	.43***	.36**	.55***
Tolerance for refugees	.27*	.09	.26*
Press freedom	.64***	.47***	.66***
Military expenditure	-.30*	-.76***	-.21
Military use	-.18	-.60***	-.17
Factors			
Liberal development	.62***	.42***	.81***
Violent inequality	-.34**	.15	-.10
Violent means	-.17	-.73***	-.06
Nurturance	.30*	.01	.31**

*** $p < .001$; ** $p < .01$; * $p < .05$.

establish the relationship between culture (as values, attitudes, and ways of life) and the different bases of the culture of peace envisioned by the UN. Also, the sample of nations did not include those that are the poorest and most war-torn, and this may have obscured some important relationships, such as the relationship between development and the generation of refugees by civil war.

However, it seems likely that the conception of a culture of peace as a unity needs to be closely examined. The respect for life indicated by a long life expectancy does not correlate with respect for life as measured by a low homicide rate, and neither of these measures relates to respect for life as demonstrated by restraint on military threats. Liberty, as reflected by democracy or human rights, has little relation to equality as reflected in income distribution, and neither appears to be related to the solidarity and tolerance reflected by welcoming rather than generating refugees. How coherent is the idea of a culture of peace?

Coherence of the Concept

The factor analysis suggests that we might want to distinguish four dimensions of peacefulness. Liberal development (in the sense of democratic participation, press freedom, human rights, economic and social development, and gender equality) should be distinguished from domestic peacefulness in the sense of low inequality and low homicide rate. Although liberalism and economic development are highly interrelated, they are insufficient to ensure domestic equality and tranquility. And it is disturbing to note that neither liberal development nor the absence of violent inequality is related to peacefulness as an avoidance of violent means (in the sense of military threats or the imprisonment of one's own population).

The analysis also suggests a fourth 'nurture' dimension (underlying a commitment

to public education, the acceptance rather than generation of refugees, and, to some extent, gender equality and human rights). Regarding this dimension, it is interesting to note that even when we control for per capita GDP, the number of women in parliament is significantly related positively to the percentage of GDP spent on public education (+.26) and negatively (-.27) to the percentage of GDP spent on the military. The importance of this fourth factor is not clear. On the one hand, when better indicators for education and tolerance are developed, three factors may suffice. On the other hand, the anthropological literature, along with the positive relationship between the number of women in parliament and the amount of GDP devoted to education, suggests that it may be important to add the valuing of children and nurturance to the bases for a culture of peace. Measures for such a base, along with measures for the sustainability of development and a concern for the earth and its resources, might well load on a nurturance factor.

The data clearly support the Committee for the Culture of Peace's decision to develop separate indices for military-diplomatic, political, and socio-economic peace. However, the results suggest that the components used to construct the latter two indices should be adjusted to more adequately distinguish them. As would be expected, the human development and education indicators correlate more highly with the socio-economic than the political index, but one would expect the human rights, democracy, and press freedom indicators to correlate more highly with the political index, and only the first of these does so.

Given the fact that the concept of a culture of peace implies a central unity of values, attitudes, and way of life, how may we best understand the fact that we fail to find a single factor underlying the bases of the culture that is imagined? Although the

concept may be useful in articulating a political goal, should we reject the idea of a culture of peace as an analytic concept? Or should we retain the concept with the understanding that we may need different dimensions to describe the extent to which a culture of peace exists in today's nation-states?

In making this judgement, it seems important not to allow the measurement of the different bases of the concept to distract our attention from the dynamics postulated to lie at the heart of the culture. If the concept simply referred to a state in which societies were at peace rather than war, then the concept would not appear to be of much analytic use. However, the concept does not oppose peace to conflict. Rather, it assumes conflict and contrasts whether conflicts are resolved by violent or nonviolent means. A crucial dynamic is stated by UNESCO (1995: 16): 'In practice, the key to a culture of peace is the transformation of violent competition into co-operation for shared goals. . . . It may be understood as the managing of conflict through the sharing processes of development.'

Since the factor we have labeled 'violent means' is not related to liberal development or to violent inequality within a nation, we may want to differentiate the arenas in which conflicts must be managed. Rather than abandon the concept of culture of peace, we may want to note how conflicts between government and people, between haves and have-nots, between different groups within a society, and between societies may be settled in different ways. Nonviolence may be held as a dominant value in one arena but not in another, so that cultures are not uniformly peaceful. Thus, nonviolent solutions to conflict between government and people may involve development, democracy, open communication, and human rights, but they might not result in nonviolent solutions to conflict between rich and poor or conflict

with other nations. The values that govern processes within groups do not necessarily govern process between groups. Hence, rather than abandoning the concept of a culture of peace as an analytic tool, we may simply need to enrich it to incorporate how nonviolent solutions in one arena influence how conflicts are handled in other arenas.

One aspect of the complexity involved in cultural analysis is that the cultures of nation-states are intertwined in a global economy and an evolving global culture. Klare (1996) has observed how the growing schisms within nations are linked to relations between nations in ways that demand a new geography of conflict. Galtung (1971) has pointed out that the interests of elites in different nations are often more closely linked with one another than with the interests of the majority within their own nation. In an imperialistic system of domination, there is relatively less disharmony between elite and non-elite interests in a central dominating nation than in a peripheral nation that is being dominated. These observations suggest that a future global culture of peace may require an increased awareness of how all peoples are interrelated. We may want to develop ways to measure the extent to which both elites and peoples demonstrate an awareness of global needs, a concern for the welfare of others who are not part of their own nation and interest group, and a willingness to act on behalf of global interests.

Is the Concept Realistic?

Whether the concept is political or analytic, we must ask about the relationship between the concept and what is possible given what we know about human nature. The culture of peace imagined by UNESCO (1995) requires a respect for the rights of others rather than a domination of the weak by the strong, and it suggests a global identity that is based on local identities, with a global solidarity against common threats to our earth.

Yet, a concern for others and for a common earth is often subordinated to the concern for one's self and an assertion of self. Boulding (2000b) suggests that a peace culture promotes peaceful diversity by including patterns of behavior and institutional arrangements that promote mutual caring and successfully balance the need for autonomy with the need for relatedness. And, she is able to demonstrate that in many societies the elements of such a culture are mixed in with the contrasting elements of a warrior culture that involves dominance and violence. However, the fact that these cultural elements are often mixed within the same society suggests that complex dynamics may be involved.

When we observe the current conditions in which most of us live, we note major challenges to establishing a culture of peace. These raise questions about the malleability of human nature and may impose constraints on how peaceful cultures must be designed. For example, many people enjoy power and status, and hierarchies of power and status are so prevalent in contemporary societies that it is difficult to imagine modern culture without them. However, this need not mean that cultures of peace are impossible. If the essence of a culture of peace is that the strong do not dominate the weak, we can aim to structure societies so that positions of power and status in hierarchies are based on caring for others rather than dominating them (see Maslow, 1977). Another challenge is raised by the fact that people seem predisposed to in-group favoritism and prejudice and that people have a commitment to different belief systems that make it difficult to achieve global solidarity. However, it may well be possible to separate ethnic and state identities so that conflicts can be isolated and contained by a global state identity (see Gottlieb, 1993). Thus, although the concept may need modification, it should not be dismissed as unrealistic.

Assessment of National Cultures of Peace

At the beginning of this article, we asked if the bases articulated by the UN resolution are the necessary and sufficient bases of a culture of peace and if they might provide the grounds for the assessment of the degree to which different nations possess a culture of peace. On the one hand, the concept seems somewhat simplistic. A simple listing of bases fails to reveal the complexities of such a culture and adequate description requires a number of different dimensions; it is not yet clear how the dimensions of a culture of peace are dynamically interrelated; and the concept may need to include a reference to nurturing child-rearing practices or other bases that are not articulated in the UN resolution. On the other hand, it appears that we can use the UN bases to measure some dimensions that seem important aspects of a culture of peace; that nations can be characterized by using these dimensions; and that if we repeat these measures over time we may be able to assess progress towards the development of the UN ideal. An international consensus that links the actions of governments, NGOs, and individuals is, in itself, a basis for developing a culture of peace. Hence, at the same time that academics work on the internal consistency of the concept and the best way to relate the concept to societal realities, it seems possible and important to continue assessment with measures that keep a reference to the eight bases in the UN initiative.

Of course, such measures need to be refined, and it seems evident that we need to develop measures that more adequately address the central principles of a culture of peace. In particular, we lack adequate measures for the one base that is probably most central for the development of a culture of peace: the extent to which there is education for the peaceful resolution of conflict and training for nonviolence. It would be highly desirable to create ways to assess the extent to which such education is occurring.

We need to begin counting courses on peace and conflict resolution, programs teaching negotiation, training in nonviolent communication and action, and the extent to which nonviolence is presented in texts and histories. Such counts should be combined with normative measures, such as those for moral disengagement (McAlister, 2001), measures that could help us assess the impact of an education for nonviolence.

Nevertheless, even the crude set of measures used in this article can be applied to assess and contrast the relative state of a culture of peace in the nations for which we currently have data. Thus, we can establish a set of nations that may be said to have relatively peaceful cultures in the sense that their factor scores are above the mean on the factors of liberal democracy and nurturance and below the mean on the factors of violent inequality and violent means. This set currently includes eight nations (Australia, Canada, Denmark, Finland, Germany, New Zealand, Norway, and Switzerland). Likewise, we may establish sets of nations that appear relatively peaceful except for scores that are below the mean on nurturance, or above the mean on violent inequality, or above average on violent means. It is interesting to note that the last set is empty. That is, there are no nations that measure above average in violent means yet are peaceful on all three other factors.

Certainly, the fact that a number of nations are peaceful on all four dimensions, and that those which use violent means must also have relatively high internal inequality or be lacking in either liberalism or nurturance, suggests that a cultural element may underlie the measures. Of course, it may be objected that membership in these sets simply reflects current sociopolitical circumstances. To the extent that cultural factors are involved, we should be able to demonstrate patterns of attitudes, beliefs, and ways of behavior that are congruent with the

objective measures. In any case, and in spite of the fact that the current measures clearly need refinement, the concept of a culture of peace appears ready to stimulate interesting and useful research.

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JOSEPH DE RIVERA, b. 1932, PhD in Psychology (Stanford University, 1961); Professor of Psychology (1970–) and Director of Peace Studies Program (1991–), Clark University. Author or editor of a number of books; most recent publication: 'Aggression, Violence, Evil, and Peace', in *Handbook of Psychology* (Wiley, 2003).