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13 The Social and Economic Context of Peace and Happiness

William Tov, Ed Diener, Weiting Ng, Pelin Kesebir, and Jim Harter

Discussions of how to establish peaceful societies occasionally arouse skepticism and controversy. Leaders and international scholars do not usually debate whether peace is desirable but rather how to achieve it in their societies. A comprehensive treatment of the concomitants of peace is beyond the scope of this chapter. However, we argue that one important element of a peaceful society is that its citizens are happy and satisfied with their lives.

Several considerations arise regarding how peace and well-being are related and whether this relation should inform national policies. For example, although peaceful conditions may foster well-being, it is also possible that well-being facilitates attitudes and perceptions (such as trust and confidence in the government) that foster peace. If a happy citizenry contributes to peace, governments should take well-being into account in their policy decisions. Nevertheless, one objection to this proposal is that focusing policies on well-being might detract attention from the social and economic situation. If feelings of well-being lead to positive perceptions of society, then abusive governments might choose to divert and entertain people without necessarily improving their actual living conditions.

The potential misuse of policies informed by well-being, though possible, does not invalidate it as an important component of peace. Similar concerns might be raised about economic development—and yet, one would not dismiss its importance in helping to stabilize a society. Also, such concerns divorce the implications of an individual's well-being from the societal context that he or she is living in. It assumes that happy individuals are completely blind and unaffected by the extensive conditions or shared experiences of people in their society. However, individuals do not function in isolation but interact with their social environment. Our goal in this chapter is to examine how individual well-being relates to societal perceptions *in conjunction with* the objective conditions in a society. A joint consideration of well-being and societal conditions can provide insight into how different components of peace may be interrelated, as well as how peace itself may be conceptualized. We will see that the association between well-being and subjective societal perceptions (e.g., generalized trust) is not independent of objective conditions. These complex interrelationships between individuals and their society are illustrated using hierarchical generalized linear modeling of cross-national data from the World Values Survey and the Gallup World Poll.

We will begin by clarifying what we mean by subjective well-being and peace, and how well-being might relate to other components of peace. We then compare our emphasis on objective living conditions with the larger body of work on culture and well-being. Although objective living conditions are distinct from cultural values and beliefs per se,the assumption that shared experiences influence social perceptions and attitudes is common to all researchers (e.g., anthropologists and cultural psychologists) who attempt to situate psychological phenomena within a broader context.

FOCUSING ON GLOBAL SUBJECTIVE WELL-BEING

Subjective well-being is a broad construct that includes frequent positive emotions, infrequent negative emotions, and cognitive judgments such as satisfaction with health, relationships, and life in general (Diener, 1984). Well-being measures can also be distinguished according to their level of specificity. Global measures of well-being refer to overall evaluations of life satisfaction and happiness, whereas specific measures have more narrow referents in terms of both time and domain (e.g., positive moods on a particular day or satisfaction with housing).

This chapter focuses on global subjective well-being. Occasionally, we use the term "happiness" or refer to "happy" and "unhappy" people, but even in these cases, we are referring to differences in global subjective well-being. We will consider how global subjective well-being is linked to positive societal perceptions such as generalized trust and confidence in government. These constructs are rather broad in that they refer to relatively abstract targets such as one's whole life (global well-being), people in general (generalized trust), or one's government. Our focus on broad measures is in line with our interest in the implications of well-being for peace—another broad construct. We will review later the possible links between well-being and societal perceptions.

OBJECTIVE AND SUBJECTIVE COMPONENTS OF PEACE

Peace can be characterized by both objective and subjective components. The objective components refer to the living conditions in a society and may be represented by economic and social indicators. The subjective components refer to the beliefs and feelings that people living in a peaceful, stable society might be expected to have. These can include feelings of well-being as well as people's attitudes and perceptions of their society, such as generalized trust and confidence in the government.

Objective Components

Our working definition of a peaceful society is one that is able to satisfy the needs of its citizens and is characterized by economic equality and an absence of violence. Therefore, the societal conditions that we focus on are the level of wealth, economic inequality, and violence. We realize that our conceptualization may not fully capture the construct of peace and that other considerations such as rights and justice are important factors also. However, we focus on wealth, equality, and violence for two reasons: First, these variables are consistent with the United Nations' (U.N.) emphasis on sustainable economic development and reduction of violence and inequality (de Rivera, 2004). Second, we assume that the effects of poverty, inequality, and violence may be visible to people on an everyday basis. To the extent that people notice disparately rich and poor areas of town or live in areas where gunshots are frequently heard, they have personal experiences with inequality and violence that are likely to affect their perceptions of society.

Therefore, though our conception of peace is abbreviated, it emphasizes a subset of variables that are important factors in the stability of a society. As wealth increases, societies are better able to meet some of the conditions for peace such as social stability and satisfying the basic needs of the populace. However, rising wealth does not guarantee that incomes will be distributed equally. A society cannot be considered peaceful if wealth is heavily concentrated and large segments of the population suffer in dire poverty. Consequently, it is important to consider not just economic development but its distribution through society as well. The extent of social stability may also be reflected in the level of violence in a society. High rates of death due to homicide and warfare may be symptomatic of social instability and produce greater insecurity among the populace. In addition, both violence and economic inequality may be linked. Lee (2001) found that economic inequality was positively associated with homicide rates across a sample of 50 nations. For example, in Brazil, rising violence has been attributed to poverty and perceived inequality exacerbated through exposure to the lifestyles of the wealthy via television (Colitt, 2007).

Although the U.N. has also emphasized the importance of human rights, such measures often correlate highly with and are difficult to disentangle statistically from the level of wealth in a nation (de Rivera, 2004; Diener, Diener, & Diener, 1995; Tov & Diener, 2008). That is, the wealthiest nations (e.g., Norway and the U.S.) tend also to be more democratic, affording their citizens greater political and civil liberties. Thus, although we do not consider these factors directly, they may be represented indirectly in the effects of wealth. We do not mean to imply, however, that rights and wealth are conceptually equivalent.

Subjective Components

We consider subjective well-being itself to be a subjective component of peace. However, stable and secure living environments not only should increase well-being, but they should also affect people's perceptions of their society. We focus on two such perceptions: generalized trust and confidence in one's government. Generalized trust refers to the belief that most people can be relied on and expected to honor their obligations. It might influence how people relate to their fellow citizens. Confidence in government refers specifically to people's trust in their government—their belief that their country's political institutions can be relied on to take care of citizens' needs.

People living in a peaceful, stable society might be more trusting of their fellow citizens than people living in a war-torn or otherwise unstable society. Perceived competition for scarce resources may foster perceptions of hostility as well as distrust of out-group members (Eidelson & Eidelson, 2003; Hardin, 1995). The psychological effects of war have also been associated with greater levels of distrust among Bosnian refugees (Mooren & Kleber, 2001).

In a peaceful society, people might also be expected to have more confidence in their government. To the extent that people hold their governments responsible for securing stable economic and social conditions, people living in such conditions should feel more positively about the politicians and leaders in office. Losing confidence in government can set the stage for unrest and instability. For instance, in 2007 violence erupted in Kenya after suspicions were raised about election fraud. The violence was particularly acute in the slums, where people were already living in poverty.

Thus, generalized trust and confidence in government are important subjective components of peace. Nevertheless, we wish to emphasize that there are many other subjective perceptions that are relevant for peace, such as the perceived fairness of institutions Moreover, although we believe trust and confidence are necessary elements of a peaceful society, they are not by themselves sufficient indicators of peace. To illustrate, consider an oppressive ruling regime. Trust in an oppressive government that causes violence and misery cannot be characterized as a sign of peace. Therefore, it is important to examine the interaction effects between well-being and other objective societal factors, such as wealth, violence, and inequality.

THE INTERSECTION OF WELL-BEING, PERCEPTIONS, AND SOCIETAL CONDITIONS

Links between Well-Being and Societal Perceptions

Based on previous research, we expect individual well-being to be associated with greater trust and confidence in government. For example, DeNeve and Cooper (1998) examined the relation between various measures of subjective well-being and personality traits. They found an average relationship of .37 between well-being and trust in others. It is possible that trust and well-being facilitate each other. Experimental manipulations suggest that well-being may generate trust—participants who were induced into a positive mood were more likely to trust an acquaintance (Dunn & Schweitzer, 2005) and tended to perceive others more positively than those in a neutral or negative mood (for a

review, see Lyubomirsky, King, & Diener, 2005). Trust, in turn, could aid in the formation of social relationships, a strong correlate of well-being (e.g., Diener & Seligman, 2002).

One basis for greater trust among happy people is that they are more likely to go out and explore. Most people in most nations report a positive level of subjective well-being, and a possible explanation for this is that people have a positive set-point for affect because of the associated evolutionary advantages (Diener & Diener, 1996; Fredrickson, 1998; Ito & Cacioppo, 1999). Positive moods promote approach tendencies, which are essential for survival (e.g., to obtain food, shelter and social support). Indeed, there is evidence that happier people may have stronger positivity offset (Ito & Cacioppo, 2005), the tendency to be in a positive state in the absence of any stimuli. Furthermore, studies by Ito and Cacioppo (2005) have shown that people with stronger positivity offset form more favorable evaluations of others, even when given only neutral information. Thus, a positive set-point would be advantageous because it motivates exploration behavior and encourages human sociability. The increased interactions with others are also likely to build trust.

There are also theoretical explanations for why well-being might be associated with confidence in government. When people are able to meet their needs and feel like the social and economic state of their society is adequate, they should experience increased well-being as well as more confidence in the performance of their government.

The notion that fulfillment of basic needs contributes to well-being receives some support from a variety of studies. For example, the relation between national wealth and subjective well-being may be due partly to the greater provision of food and shelter in affluent societies. Using various indicators of a nation's economic wealth, correlations between the wealth and subjective well-being of a nation have been found to range from .58 to .84 (Diener et al., 1995; Inglehart & Klingemann, 2000; Veenhoven, 1991). Positive levels of well-being are also observed among smaller, non-industrialized societies such as the Maasai in Kenya, the Inughuit in Greenland, and the Amish in the U.S. (Biswas-Diener, Vittersø, & Diener, 2003). People living in these societies are not wealthy but still may be able to satisfy important needs. If well-being serves as a proxy for the extent to which important needs are met, one might then expect individuals who are happy and satisfied to be more confident in the government.

Objective Conditions as Moderators

Previous researchers have suggested that instability can negatively impact societal levels of well-being. Inglehart and Klingemann (2000) noted that, after the collapse of communism in Eastern Europe and the U.S.S.R., levels of well-being were lower than they were before the ensuing instability caused by political change.

The relation between well-being and societal perceptions should also be influenced by the actual conditions in a society. In general, the correlation of well-being with generalized trust and confidence in government should be weaker where there is greater social and economic instability—in other words, in societies that suffer from violence, poverty, and inequality. When the conditions in a society are unstable and unsafe, this may constrain how freely or comfortably people move through their society. Thus, even though happy individuals may be more likely to interact with and trust others, they may be less likely to do so in areas that are unsafe and unstable. Therefore, the correlation between well-being and generalized trust should be reduced in such societies.

We expect instability to attenuate the relation between well-being and confidence in government as well. First, even individuals who are relatively happy may doubt the government's ability to provide safe conditions in the face of extensive inequality and violence. Second, prolonged instability and corruption may foster receptiveness toward rebel groups as in Colombia, further delegitimizing the government. In sum, unstable conditions produced by poverty, inequality, and violence may weaken the association of well-being with societal perceptions such as generalized trust and confidence in government.

CULTURE AND OBJECTIVE CONDITIONS

We expect the links between well-being, generalized trust, and confidence in government to vary across nations, and we predict that objective indicators will account for some of this variation. Economic and social conditions notwithstanding, there are other factors such as cultural values and beliefs that may influence cross-national differences in the subjective components of peace. Although our emphasis is on societal conditions rather than cultural values, the two are not independent of each other. It is possible to argue that the material or economic aspects of a society are simply one aspect of culture, broadly construed. The conditions in a society may contribute to shared experiences that shape the development of shared beliefs. Thus, societal conditions and cultural values may be related to each other, and it may be helpful to keep this relationship in mind when contemplating how well-being and trust may vary across cultures.

A large body of research on culture and well-being has identified a number of ways the experience of well-being may differ across nations (Tov & Diener, 2007). Much of the research on culture and well-being has focused on the broad cultural dimension of individualism-collectivism (Triandis, 1995). Individualist cultures such as those in North America and Western Europe emphasize independence from one's social groups and focus on a person's unique identity and personal goals. Collectivist cultures, such as those in East Asia, emphasize interdependence with one's groups and focus on group identity and shared, collective goals. Some findings suggest that representatives of individualist cultures are more likely than representatives of collectivist cultures to judge their well-being by referencing their internal feelings. For example, self-esteem and emotions were more predictive of life satisfaction in individualist societies (Diener & Diener, 1995; Suh, Diener, Oishi, & Triandis, 1998). In addition, high self-esteem may be de-emphasized in collectivist cultures, as meeting social obligations and maintaining harmony in social relationships are more important (Heine, Lehman, Markus, & Kitayama, 1999). Consistent with this reasoning, the life satisfaction of East Asians is predicted as much by relationship harmony as it is by self-esteem (Kwan, Bond, & Singelis, 1997; Kang, Shaver, Sue, Min, & Jing, 2003).

Another relevant cultural dimension is social cynicism, a dimension of social axioms. Social axioms are generalized beliefs about oneself and the environment, and they spell out the relationship between two concepts or entities. They are pancultural, though endorsed to different extents by people in various cultures (Leung et al., 2002). Social cynicism includes a negative view of people, a mistrust of social institutions, as well as negative stereotypes about certain groups. It seems that social cynicism can affect generalized trust and confidence in government directly as well as indirectly via its influence on well-being. Indeed, a longitudinal study has shown that higher levels of social cynicism predicted lower life satisfaction (Lai, Bond, & Hui, 2007).

Thus, a number of studies attest to the role of cultural values and beliefs in shaping well-being and trust. However, economic conditions may be related to cultural values and beliefs. For example, national wealth (e.g., gross domestic product per capita) correlates positively with various measures of individualism (Diener et al., 1995; Tov & Diener, 2008). Ahuvia (2002) proposed that economic development fostered individualism by freeing people from economic dependence on one's family and in-groups. Greater individual finances might facilitate the pursuit of personal goals as well as personal well-being.

Economic inequality might also be related to cultural values. Triandis (1995; Triandis & Gelfand, 1998) further distinguished between horizontal and vertical types of individualism and collectivism. Horizontal cultures value equality. Horizontal individualism focuses on individuals as equally unique and self-sufficient; horizontal collectivism focuses on individuals as equal members of a group. In contrast, vertical cultures do not value equality. Vertical individualist cultures focus on competition; vertical collectivist cultures focus on observing rank and authority.

One conjecture is that economic equality is associated with greater horizontalism and less verticalism, either because values serve to reinforce economic systems or because economic distribution promotes certain values and beliefs. For example, Scandinavian countries such as Sweden are

reported to be high on horizontal individualism (Triandis, 1995), and income tends to be more equally distributed in these countries. For example, the average Gini Index score across Denmark, Sweden, and Norway is 25.2 (where 100 represents the greatest inequality; United Nations Development Programme (UNDP), 2007). Vertical cultures, by comparison, may be more tolerant of inequality. Schimmack, Oishi, and Diener (2005) suggested that vertical individualism may overlap with power distance, a cultural dimension identified by Hofstede (2001). In cultures that are high on power distance, people may be more likely to accept that some individuals have more power than others. The Scandinavian countries also tend to be low on power distance, whereas countries that are high on power distance, such as Malaysia and Guatemala (Hofstede, 2003), tend to have higher Gini index scores (49.2 and 59.1, respectively, UNDP, 2007). Interestingly, power distance correlated negatively with general measures of individualism that do *not* distinguish among vertical or horizontal dimensions (Arrindell et al., 1997). Moreover, whereas general individualism correlated positively, power distance correlated negatively with national subjective well-being.

Thus, although the focus of our analysis is on the objective conditions in a society, these conditions may nevertheless be related to cultural values and beliefs. We are not suggesting that economic variables can supplant more subjective measures of culture. For example, although national well-being is positively associated with gross domestic product (GDP) per capita, well-being is higher in Latin nations and lower in Japan than would be expected based on GDP alone (Diener & Suh, 1999). This suggests that cultural values could explain additional variance on top of that accounted by economic variables. Although there are widely available measures of cultural dimensions (e.g., Hofstede, 2001), not all countries in our samples have such data. We therefore opted to limit our range of inquiry while working with as large a sample of nations as possible.

HIERARCHICAL LINEAR MODELING AS A TOOL FOR CROSS-CULTURAL RESEARCH

We examined the association of well-being with societal perceptions such as generalized trust and confidence in the government in the World Values Survey and the Gallup World Poll. We also examined how objective societal conditions (i.e., wealth, economic inequality, and violence) moderate the relation between well-being and perceptions of peace.

We were interested in two levels of analysis. At the person-level, we examined whether an individual's well-being accounted for variation in societal perceptions across respondents. It is worth noting that the research we reviewed earlier predicts that well-being will be associated with trust and confidence *at the individual level*. At this level, we are asking whether happy individuals are more likely to trust others and their own governments than unhappy people are. Processes that occur at the individual level may not be the same as those that occur at the nation level. For example, instability might lower societal levels of confidence in government, but particular individuals might still have confidence.

At the nation-level, we examined whether objective conditions accounted for variation in the association between well-being and societal perceptions across countries. Given our interest in two levels of analysis and the nested structure of our data (individuals within countries), we employed hierarchical generalized linear modeling. An alternative approach would be to use ordinary least squares regression (OLS) by assigning all individuals within a country the same values on nation-level variables (e.g., economic inequality). However, OLS treats all individuals as independent observations and ignores the possibility that individuals within the same country may share certain experiences that they do not share with people from different countries. As a result, the standard errors for the effects of nation-level variables may be underestimated, inflating Type I error.

Within a hierarchical linear modeling framework, individual respondents can be clustered within nations, and variation in the relation between well-being and societal perceptions across nations can be explicitly addressed. Assuming that the association between well-being and societal perceptions

is partly affected by the experiences that are shared by people within a country, these shared experiences can be operationalized by nation-level variables such as objective living conditions. That is, nation-level characteristics can be used to predict variation in how strongly well-being is associated with societal perceptions. The standard errors for nation-level effects are then more appropriately based on the number of countries rather than the total number of individual respondents.

An important concern is whether or not shared experiences can be meaningfully captured at the level of nations. In general, this will depend on the constructs that one is interested in. Our interest is in perceptions of broad targets such as trust in generalized others or one's government. Therefore, indicators of overall conditions within a nation may be appropriate. Nevertheless, there may be a great deal of variation within nations in terms of well-being, generalized trust, and confidence in government. An interesting question for future research is to explore the extent to which more localized variables (e.g., the conditions of one's city) influence perceptions of one's country as a whole. That said, we believe our analyses will still be informative if national conditions are shown to moderate the links between well-being and perceptions of society. If the effects of objective conditions are found at the broad level of nations, one might expect local conditions to produce even stronger effects on more proximal perceptions of one's city or town.

We utilized hierarchical *generalized* linear modeling because our criterion variables were either dichotomous or ordinal in nature. As with logistic regression, what is estimated from the predictor variables is the log-odds or probability of giving a certain response. We turn first to the World Values Survey and then to a much larger sample of nations in the Gallup World Poll.

WORLD VALUES SURVEY (WVS)

Data were primarily taken from the 1999–2000 wave of the WVS. Not all countries could be included due to a lack of data on certain variables. In order to increase our sample, we included six nations from the 1995 wave. This resulted in a maximum sample size of 71,920 respondents from 50 countries.

Person-Level Measures

Subjective well-being (SWB). Respondents rated their satisfaction with life (1 = *dissatisfied*, 10 = *satisfied*) and their feeling of happiness (1 = *not at all*, 4 = *very happy*). Responses were first converted to a 100-point scale and then averaged into an overall well-being score (M = 65.09, SD = 23.10). The correlation between life satisfaction and happiness across respondents was $r(71{,}918)$ = .53, $p < .001$.

Trust. Respondents indicated whether they believed "that most people can be trusted or that you can't be too careful in dealing with people." Responses were dichotomously coded (0 = *can't be too careful*, 1 = *most people can be trusted*). At the individual-level, 27.5 percent of respondents believed most people can be trusted.

Confidence in parliament. Confidence in the legislative branch of government (or parliament) was rated on a scale from 1 (*none at all*) to 4 (*a great deal*). We considered responses of either 3 (*quite a lot*) or 4 to indicate confidence in the parliament. Approximately 28 percent of respondents were confident in their nation's parliament.

Nation-Level Measures

Gross domestic product (GDP) per capita. We obtained each nation's GDP per capita for the relevant year from the Penn World Tables (Heston, Summers, & Aten, 2002) in constant 1996 dollars. We applied a natural log transformation to stabilize the wide variance in GDP data.

Violent Inequality. In our initial selection of objective indicators, we drew on previous empirical work on the U.N. criteria for peace and stability. de Rivera (2004) factor analyzed a number

of economic, social, and political indicators representing the U.N. criteria. The various indicators were compiled between 1999 and 2002 and are thus largely contemporaneous with the majority of our WVS sample. The first factor extracted included GDP per capita as well as political indicators measuring the extent of human rights and democracy in a nation. As noted earlier, these measures tend to correlate heavily with each other. The second largest factor was composed of economic inequality (the Gini index) and homicide rates. de Rivera labeled this factor "violent inequality" and provided factor scores for over 70 nations. We used these factor scores to characterize the level of inequality and violence in a society. These scores ranged from -1.78 (Croatia) to 2.57 (Argentina).

Results

Table 13.1 presents the correlations among nation-level variables in the WVS. Also included are correlations with nation-level aggregates of SWB, trust, and confidence in the parliament. Generalized trust correlated positively with GDP per capita but negatively with violent inequality ($p < .10$). Confidence in government did not correlate significantly with either GDP or violent inequality. It is interesting to note that at the nation-level, SWB correlates with generalized trust, but not significantly with confidence in parliament. We will postpone discussion of this difference until after we examine the individual-level associations.

Table 13.2 presents the results of nonlinear hierarchical models predicting generalized trust and confidence in parliament from respondents' subjective well-being and nation-level variables. In the case of well-being, respondents' scores were group-mean centered (i.e., the mean for their country was subtracted from their score).

Each hierarchical model consists of two parts: an intercept model and the subjective well-being slope model. The intercept model predicts the size of the intercept (β_0) from nation-level predictors (log GDP per capita and violent inequality). The slope model predicts the size of the regression slope of societal perceptions on well-being (β_{SWB}) from the same nation-level variables. We follow the convention of Raudenbush and Bryk (2002) in labeling coefficients in the intercept model from G00 to G02, and those in the slope model from G10 to G12. In Table 13.2, both raw and standardized coefficients are presented.

In the intercept model, the G00 coefficients are log-odds representing the average intercept (β_0) or level of generalized trust and confidence across the 50 nations in our sample. For generalized trust, G00 equals -1.017, which corresponds to a probability of $\exp(-1.107)/[1 + \exp(-1.107)] = .27$. Thus, the average number of respondents in each nation who believe most people can be trusted is 27 percent. The overall level of trust is higher in some countries and lower in others. Recall that generalized trust tended to be higher in countries that were high on GDP per capita and low on violent inequality (see Table 13.1). The remaining coefficients in the intercept model (G01 and G02) test the unique association of each nation-level variable with trust. These coefficients indicate

TABLE 13.1
Correlations among Nation-Level Variables

Variables	1	2	3	4
1. Log GDP per capita	--			
2. Violent Inequality	-.16	--		
3. SWB	.70***	-.03	--	
4. Generalized Trust	.38**	-.28†	.34*	--
5. Conf. Parliament	-.20	-.20	.04	.36*

Note: Conf. Parliament = Confidence in Parliament. N = 50.
†p < .10. *p < .05. **p < .01. ***p < .001.

TABLE 13.2
Hierarchical Generalized Linear Models Predicting Generalized Trust and Confidence in Parliament from Person-Level SWB and Nation-Level Variables in the World Values Survey

	Generalized Trust			Confidence in Parliament		
	Coefficient			Coefficient		
	Raw	Stdz	*t*	Raw	Stdz	*t*
Intercept, G00	-1.017		-9.978***	-.471		-22.242***
Log GDP per capita, G01	.330	.273	2.626*	-.228	-.189	-1.605
Violent Inequality, G02	-.311	-.262	-2.509*	-.241	-.204	-1.726†
SWB slope, G10	.010	.234	12.257***	.007	.164	9.008***
Log GDP per capita, G11	.003	.053	2.748**	-.000	-.005	-.293
Violent Inequality, G12	-.002	-.035	-1.736†	-.002	-.047	-2.553*

Note: Stdz = Standardized coefficients
†p < .10. *p < .05. **p < .01. ***p < .001.

that GDP was associated with greater levels of trust and that violent inequality was associated with lower levels of trust.

In the subjective well-being slope model, the G10 coefficient represents the average betas or association between person-level well-being and the criterion measures (β_{SWB}). On average, well-being was associated with increased trust in others. This association is stronger in some countries and weaker in others. The remaining coefficients in the slope model (G11 to G12) test whether each nation-level variable uniquely moderates the relation between well-being and generalized trust. The results indicate that the association between well-being and trust was moderated by GDP per capita. Figure 13.1 displays the interaction between GDP and well-being. We first estimated the log odds of trust at one standard deviation above and below the mean of both well-being and GDP per capita. These predicted log odds were then converted to probabilities.

In societies where GDP was high, happy people were much more likely to be trusting than unhappy people (.38 versus .27, respectively). In poorer countries, however, this difference was appreciably less. We also examined the zero-order correlation between well-being and generalized trust in wealthy versus poor countries. For example, the correlation was higher in a wealthy nation like Finland than it was in a poorer nation like India (r = .15 and .01, respectively). In addition, well-being was *less* strongly associated with trust in countries that were high on violent inequality. Although the moderating effect of violent inequality was marginally significant (p = .09), we will see that a similar effect was observed in the Gallup data.

Subjective well-being was also positively associated with confidence in parliament. However, this association was moderated by violent inequality. As shown in Figure 13.2, happy people were generally more confident in parliament than unhappy people, but the effect was stronger in societies where violent inequality was low.

For instance, the correlation between well-being and confidence is greater in Morocco (low on violent inequality; r = .08) than in Russia (high on violent inequality; r = -.01). These results tentatively suggest that the relation between well-being and societal perceptions is partly constrained by the objective conditions in a society.

Although well-being correlates with confidence in parliament at the individual level, recall that it did not correlate at the nation level. This suggests that national levels of well-being and confidence in government may not be conceptually equivalent to their individual level counterparts—a

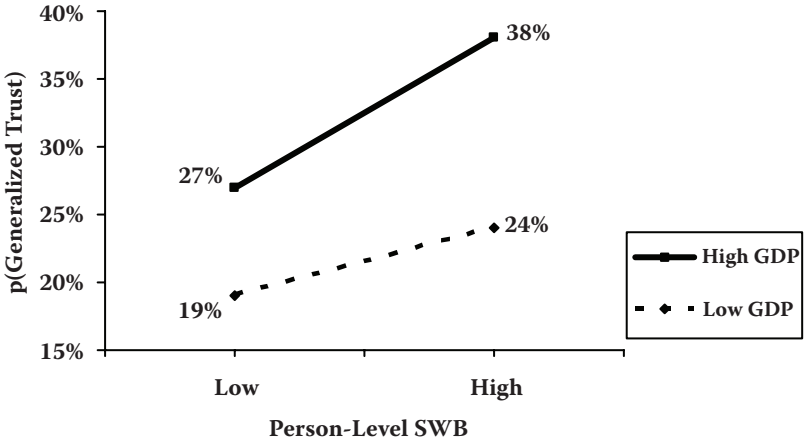

FIGURE 13.1 Likelihood of generalized trust as a function of person-level SWB and nation-level log GDP per capita (World Values Survey).

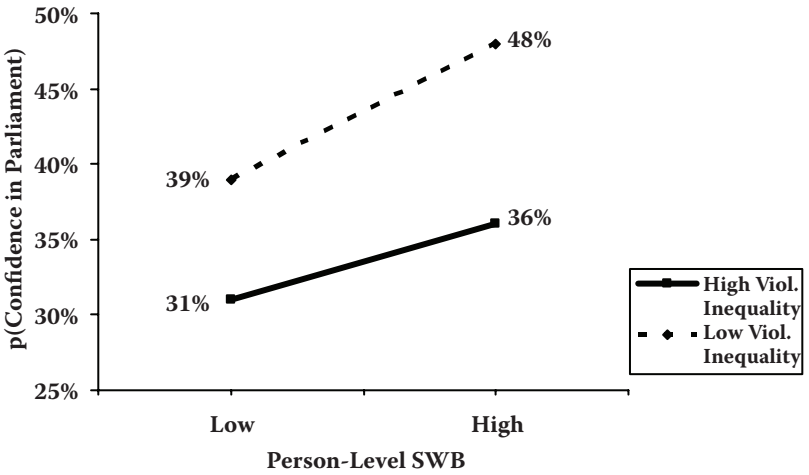

FIGURE 13.2 Likelihood of confidence in parliament as a function of person-level SWB and nation-level violent inequality (World Values Survey).

reminder of the ecological fallacy. In other words, some factors that contribute to mean levels of well-being and confidence in a nation may not necessarily contribute to well-being and confidence at the individual level.

One way to make sense of this discrepancy is to mind the fact that the correlation between individual well-being and confidence varies across nations. In some countries then, confidence in government is less related to well-being. The moderating effects of violent inequality may suggest not only that happy people are not blind to conditions in their society, but they might also indicate that when conditions are unstable, some people may be able to secure a sense of well-being without expecting government support, either because of perceived inefficiency or corruption. One country in the 1999–2000 wave that seems to fit this profile is Mexico—which was relatively high on violent inequality and ranked 42nd out of 50 in terms of confidence in the government, but had a mean well-being score of 81 out of 100. This dissociation between well-being and confidence in some countries and not others may partly account for the lack of association at the nation level.

One important limitation of our subsample of the WVS is that few countries from Africa, Central America, and Southeast Asia were included. Nations from these regions represent some of the poorest and unequal societies in the world—and therefore would provide a stronger test of the moderating effects of societal conditions.

GALLUP WORLD POLL

Our analysis of the Gallup World Poll served several purposes. First, we wanted to replicate the observed interactions between societal conditions and subjective well-being. Second, instead of using factor scores that combine the level of violence and inequality, we obtained separate data on economic inequality and violence. Thus we could investigate more closely which aspect of society moderates the relation of well-being to trust and confidence in government. Finally, the Gallup data set provides us with a larger sample of nations.

From late 2005 through 2006, the Gallup Organization surveyed representative samples from 132 societies. Several countries could not be included because the relevant items were not asked or because nation-level data were not available. The final sample consisted of a maximum sample size of 103,218 respondents from 108 countries.

Person-Level Measures

Ladder of life. As an evaluation of their life, respondents indicated which step of a ladder numbered from 0 (*worst possible life*) to 10 (*best possible life*) represents their present life situation ($M = 5.43$, $SD = 2.25$).

Generalized trust. Respondents were asked to imagine losing their wallet or something valuable. They then indicated (yes or no) whether they believed their wallet would be returned to them if found by a stranger, neighbor, or the police. Data were only available for 75 nations. Responses were summed across the three items (*alpha* = .62, $M = 1.27$, $SD = 1.04$). In the results, we will present the likelihood of trusting all three targets.

Confidence in government. Whether respondents had confidence in the national government was measured dichotomously (yes or no). Fifty-four percent of respondents had confidence in their national government.

Nation-Level Measures

GDP per capita. We obtained figures for 2006 GDP per capita based on purchasing power parity in international dollars (International Monetary Fund, 2007). As before, we log transformed GDP per capita before including it in our analyses.

Economic inequality. Each nation's level of economic inequality was assessed by the Gini index (UNDP, 2007), with values running from 0 to 100. Higher scores indicate greater inequality. Values ranged from 24.7 (Denmark) to 62.9 (Sierra Leone), with a mean of 40.1 and a standard deviation of 9.52.

War-related deaths. Due to a lack of comprehensive international data on homicide rates, we utilized war-related death rates per 100,000 (World Health Organization, 2002) as an alternative measure of violence. We used data from the most recent year available, 2002 ($M = 1.93$, $SD = 6.60$). Rates ranged from 0 (several countries) to 39.3 (Macedonia). Because death rates were positively skewed, we applied a square-root transformation to normalize the distribution.

Results and Discussion

The correlation of nation-level variables with Gallup World Poll data are presented in Table 13.3. Once again, generalized trust correlated positively with GDP per capita. Trust also tended to be

TABLE 13.3
Gallup World Poll: Correlations among Nation-Level Variables

Variables	1	2	3	4	5
1. Log GDP per capita	--				
2. War Deaths	-.31**	--			
3. Economic Inequality	-.36***	.14	--		
4. SWB (Ladder)	.83***	-.28**	-.28**	--	
5. Generalized Trust	.49***	-.08	-.35**	.51***	--
6. Conf. Government	-.15	.06	.00	-.03	.24*

Note: Conf. Government = Confidence in Government. N = 108 except for correlations with generalized trust (N = 75).
*P < .05. **P < .01. ***P < .001.

TABLE 13.4
Hierarchical Generalized Linear Models Predicting Generalized Trust and Confidence in Government from Person-Level SWB and Nation-Level Variables in the Gallup World Poll

	Generalized Trust			Confidence in Government		
	Coefficient			Coefficient		
	Raw	Stdz	*t*	Raw	Stdz	*t*
Intercept, G00	-2.043		-20.691[4]	.178		1.742[1]
Log GDP per capita, G01	.383	.454	4.389[4]	-.167	-.197	-1.709[1]
War Death Rate, G02	.051	.069	.762	-.026	-.035	-.322
Economic Inequality, G03	-.024	-.224	-2.350[2]	-.010	-.093	-.854
SWB (Ladder) slope, G10	.079	.178	8.273[4]	.085	.190	12.144[4]
Log GDP per capita, G11	.016	.043	1.915[1]	.001	.002	.129
War Death Rate, G12	.002	.005	.276	-.013	-.039	-2.347[2]
Economic Inequality, G13	-.002	-.040	-1.938[1]	-.003	-.056	-3.404[3]

Note. Stdz = Standardized coefficients.
[1]p < .10. [2]p < .05. [3]p < .01. [4]p < .001.

lower in countries with greater economic inequality but was not associated with war-related death rates. Confidence in government was not associated with any measure of objective condition. Greater well-being was associated with greater trust but again was not associated with confidence in government.

We estimated two nonlinear hierarchical models predicting generalized trust and confidence in government from respondents' well-being and three nation-level variables (GDP, economic equality, and war-related death rates). The results in Table 13.4 confirm the zero-order correlations in showing that generalized trust is higher in countries with greater wealth and less inequality. Thus, objective conditions appear to have a direct impact on societal levels of trust. Individual well-being was also predictive of trust. However, the moderating effects of GDP and inequality were marginally significant, though in the same direction observed in the WVS. Well-being is more strongly associated with trust where GDP is high and inequality is low. These patterns are consistent with the idea that well-being is more predictive of trust in stable societies.

Confidence in government was again associated with individual well-being. Although objective conditions did not predict overall levels of confidence, both war death rates and economic inequality moderated the relation between well-being and confidence. These interactions are presented in Figure 13.3 and Figure 13.4 and can be interpreted similarly to the effects of violent inequality in the WVS. In societies that suffered high rates of war deaths or high levels of economic inequality, well-being was less strongly associated with confidence in government.

Though significant, it is worth noting that the interaction between war death rates and well-being is notably weak. Because the data were compiled in 2002, the interaction might partly reflect the lingering effects of warfare and may not fully capture the reality of ongoing experiences of violence. In the Congo region, for instance, warfare between 1998 and 2003 destabilized several African nations, and these effects may continue to affect societal conditions. The correlation between well-being and confidence in government is inconsistent across Rwanda, Zimbabwe, Uganda, and

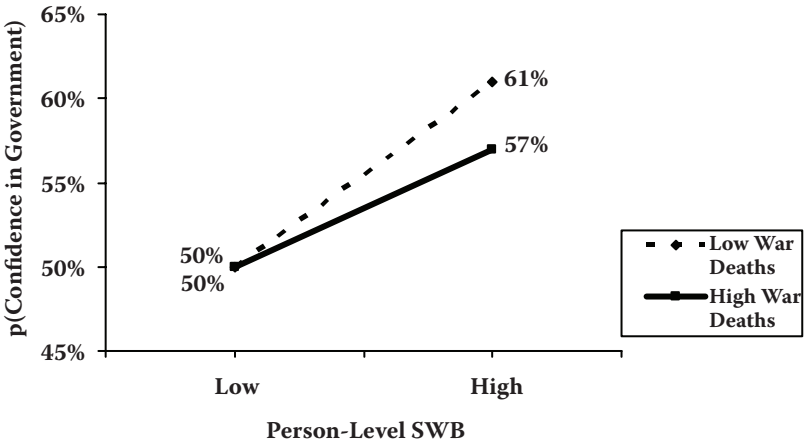

FIGURE 13.3 Likelihood of confidence in government as a function of person-level SWB (ladder) and nation-level war-related death rate (Gallup World Poll).

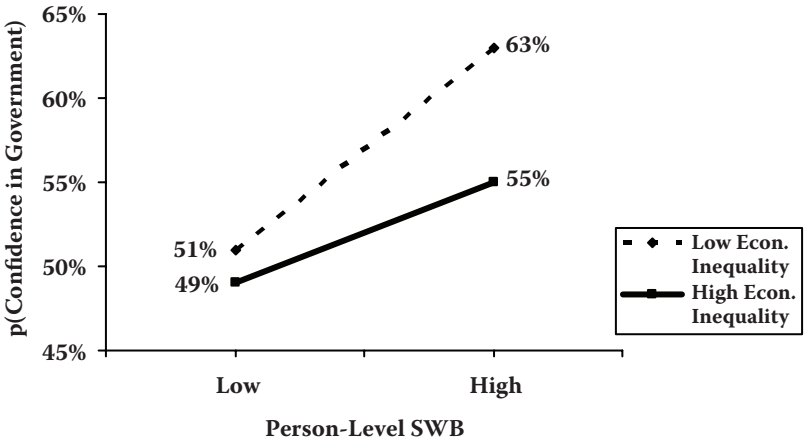

FIGURE 13.4 Likelihood of confidence in government as a function of person-level SWB (ladder) and nation-level economic inequality (Gallup World Poll).

Burundi (average r = -.02). However, in Macedonia, where conditions have improved since 2002, the correlation between well-being and confidence is .10.

The nature of war might also explain why death rates did not affect overall levels of generalized trust. The World Health Organization data on war-related death rates do not distinguish between internal conflicts and those that are due to an external threat (e.g., another country). Internal conflicts might reduce generalized trust among one's fellow citizens, but external threats may not. Data that distinguish between types of conflicts as well as more updated data on homicide rates across countries would be invaluable in clarifying the effects of violence on societal perceptions.

GENERAL DISCUSSION

At the individual level, well-being was consistently associated with generalized trust and confidence in the government. Individuals who were happy and satisfied with their lives were more likely to endorse attitudes that are important for sustaining peace. One interpretation of these findings is that happy individuals are simply predisposed to perceive others positively. Our analyses suggest that these dispositional effects may be present in that the relation between well-being and societal perceptions is significantly positive, even when averaging across nations that vary greatly in terms of economics and social stability.

Nevertheless, dispositional effects do not completely explain the link between well-being and societal perceptions. Importantly, how strongly well-being is related to generalized trust and confidence in the government depends on objective conditions. Well-being and trust are more strongly correlated in societies that are wealthy and have greater equality. Well-being is also more predictive of confidence in the government when equality is high and violence is low. In short, the conditions in a society can constrain or enhance the relation between well-being and societal perceptions. Unstable conditions may reduce the number of people one is willing to rely on, and those who are able to secure a sense of well-being may not necessarily credit the government, which itself may be contributing to instability. In a stable society, the government appears to be providing adequate living conditions, and happy people may be individuals who are benefiting greatly from such conditions, which may increase trust as well as the perceived legitimacy of the government.

Implications for Conceptualizing the Nature of Peace

Efforts to build peace often emphasize improvements in the objective conditions in a society. We do not dispute the importance of improved living conditions in helping to establish peace and stability. However, the assumption that increasing economic development and equality will automatically raise subjective feelings of well-being, trust, and confidence can be questioned by our analyses. For instance, economic inequality and violence do not appear to correlate with people's confidence in government; instead, these factors *interact* with well-being to predict confidence. Thus, peace may best be characterized not by objective conditions or subjective perceptions alone—but by their *joint* presence. An example of a peaceful, stable society is one that is low on poverty, violence, and inequality *and* where people have a sense of well-being, generalized trust, and confidence in the government. The interrelations between objective and subjective factors may paint a more accurate picture of what the structure of a stable, peaceful society might be like. Thus, monitoring well-being along with other subjective measures and objective conditions might help leaders to sustain and enhance the conditions for peace.

Incorporating Knowledge of Cultural Values in the Formation of Policy

As shown, individual well-being is an important predictor of trust and confidence. Well-being, in turn, is related to and can be influenced by various factors, such as the self, social relationships, and identity consistency. Because the correlates and causes of well-being vary across cultures due to

differences in cultural values and norms, it is likely that cultural values also moderate the relation between well-being and societal perceptions.

Hence, we should examine not only how objective conditions, but also how cultural values, moderate the relation between well-being and societal perceptions. Policies that can work in one nation may not work in another, not only because of differences in economic or political conditions, but also because of cultural values. Including measures of *perceived* cultural importance of values (Wan et al., 2007) in future surveys may help explain cross-national variations in the relation between well-being and societal perceptions.

In addition, another possible way cross-cultural research may help inform national and international policies is by examining how cultural values relate to and interact with social and economic conditions. We have conceptualized objective conditions as one aspect of the shared experiences of people in a society. Although economic and social stability can be distinguished from cultural values and beliefs, such factors as wealth, inequality, and violence can affect the perceptions and beliefs that people have of their social and physical world. Thus, the conditions in a society may play a role in shaping the subjective elements of a culture. For example, wealth and equality appear to be related to overall levels of generalized trust. If Ahuvia (2002) is correct that economic development frees the individual from dependence on one's family, then one could view generalized trust as an adaptation to a more individualistic social structure in which people must frequently rely on others who are outside one's in-groups. Alternatively, lack of wealth and equality could foster social cynicism, which could reduce trust and confidence in government, as well as subjective well-being (Lai et al., 2007). Certain values and beliefs, in turn, may play a role in reinforcing social and economic systems. Although policymakers often target objective conditions, knowledge of cultural values could shed light on how potential policies may be perceived by the people who are affected. This would provide a guide as to how policies can be revised and tailored to the specific societal context.

Peace research is an interdisciplinary effort. Psychologists who study well-being and culture can offer important insights by improving our understanding of the interface between individuals and society. Policymakers usually aim to effect change at the societal level, occasionally relying on anecdotal evidence for insight on how their policies affect individual people. Psychologists can offer more systematic analyses by continuing to research topics such as well-being, social attitudes, person perception, and cultural values—and how they are shaped by and contribute to social and economic conditions.

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