Factors Predicting the Subjective Well-Being of Nations

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Subjective well-being (SWB) in 55 nations, reported in probability surveys and a large college student sample, was correlated with social, economic, and cultural characteristics of the nations. The SWB surveys, representing nations that include three fourths of the earth's population, showed strong convergence. Separate measures of the predictor variables also converged and formed scales with high reliability, with the exception of the comparison variables. High income, individualism, human rights, and societal equality correlated strongly with each other, and with SWB across surveys. Income correlated with SWB even after basic need fulfillment was controlled. Only individualism persistently correlated with SWB when other predictors were controlled. Cultural homogeneity, income growth, and income comparison showed either low or inconsistent relations with SWB.

Subjective well-being (SWB), people's cognitive and affective evaluations of their lives, is an emerging research area in the social sciences. Reviews of this field are available from Diener (1984; Diener & Larsen, 1993), Myers and Diener (1995), and Veenhoven (1984), and a discussion of the definition and measurement of SWB can be obtained from Diener (1994). In the present study, we examined the degree to which a number of national characteristics correlate with reports of well-being in order to shed light on the macrosocial variables that influence mean levels of SWB.

The guiding framework of this study was that variables influence SWB if they affect people's ability to achieve their goals (Emmons, 1986). Societal resources that allow people to make progress in achieving their goals should lead to life satisfaction and affective well-being. Thus, we hypothesized that income and human rights should correlate strongly with SWB because they are likely to influence one's ability to reach diverse goals. A second set of variables was used to examine the relativistic approach to SWB: the idea that happiness depends on one's position relative to variable standards. The relativistic model suggests that SWB depends not on one's absolute level of resources, but on how one's resources compared to relevant comparison standards such as one's past level or the level of others. In this study we examined the effect of income growth on SWB in order to test the relative-standards idea that SWB depends on

comparison to one's past income rather than on one's absolute level of income. Similarly, we examined the effects of social comparison of income on SWB in order to test the hypothesis that the effects of income on SWB depend on a comparison of one's wealth to that of others. Finally, we explored the effects of three other important sociocultural variables—cultural heterogeneity, equality, and individualism—on SWB.

Material Well-Being

At a theoretical level, wealth should predict higher SWB because greater resources allow people a greater ability to achieve some of their goals and also because high income confers higher status. In terms of the goals provided by Maslow's (1954) hierarchy of needs, income confers advantages in terms of basic physical needs, security, and the actualization of one's abilities (due to the greater freedom of action afforded by increased income). It appears that possessing a high income is the goal of a large number of people throughout the world. Because goal success is a predictor of SWB (Emmons, 1986), it seems likely that those with greater incomes will possess greater SWB.

It might be argued based on the relativistic model of SWB, however, that people adapt to their incomes so that wealth makes little long-term difference to SWB. Thus, we examined whether income levels relate to SWB even when income growth is controlled. Furthermore, Easterlin (1974) argued that people compare their incomes to those around them, and therefore differences between nations in income do not produce differences in SWB. He reasoned that income only makes a difference relative to what nearby others have. Because people tend to compare their incomes to the wealth of their neighbors, Easterlin argued that national differences in wealth should not produce differences in SWB. Thus, although there are psychological arguments as to why income should increase SWB, relativistic models predict that income should not be related to SWB.

Although income is not usually a strong predictor of individual well-being (e.g., Diener, Sandvik, Seidlitz, & Diener, 1993), in past research it has been a highly replicable predictor of SWB within countries (e.g., Easterlin, 1974; Veenhoven, 1991). Sim-

ilarly, at the national level, poorer countries appear to possess lower SWB than richer ones (e.g., Diener et al., 1993; Veenhoven, 1991). Nevertheless, cross-national work in the past was based on a very small number of nations (e.g., Easterlin, 1974; Veenhoven, 1991) and heavily weighted toward European states (e.g., Inglehart & Rabier, 1986). In the present study, we examined the relation between wealth and SWB in 55 diverse countries, using both a college student survey and also broad, representative samples from most countries. Unlike several past studies, we included relatively fewer industrialized, westernized nations. There were several communist countries (at the time of the surveys) which included: Cuba, the United Soviet Socialist Republic, East Germany, Yugoslavia, and Poland. Levels of income varied from a low of $120 per person per year in Tanzania to $32,790 per person per year in Switzerland. Based on past research findings, and the idea that adequate resources cause positive moods because they allow one to achieve one's goals (Diener & Fujita, 1995), we hypothesized that national wealth would covary with SWB. Furthermore, we hypothesized that income would have an effect on SWB even when past income (as indexed by income growth) was controlled. We reasoned that higher income would help one achieve goals, regardless of one's past income.

In addition to the simple question of whether income correlates with SWB, we also examined whether this relation is curvilinear (with decreasing marginal utility for higher incomes). Veenhoven (1991) suggested that increasing wealth may have a diminishing effect, so that one sees its influence primarily in poorer countries. He hypothesized that differences in wealth have little influence at higher levels of income because wealth contributes to SWB primarily in meeting basic physical needs.

Because nations tend to vary in the meeting of basic physical needs mainly across the lower distribution of wealth, whereas wealthier nations tend to uniformly meet the physical needs of virtually all of their citizens, Veenhoven maintained that wealth should correlate weakly with income in the richer nations. If so, this ought to manifest itself in a curvilinear rather than linear relation between wealth and SWB. The relation between basic needs, income, and SWB is theoretically significant because it is related to whether well-being depends on meeting universal biological needs, or whether it hinges on having resources to reach a broader set of cultural goals.

Veenhoven's (1991) line of reasoning raises several important issues: (a) What is the relation between income and basic need fulfillment across nations?, (b) Is the level of fulfillment of basic needs correlated with SWB across countries?, and (c) Does income have any influence beyond the effects of basic needs? We measured the fulfillment of basic physical needs in nations with five variables (life expectancy, average calories available per person, percent of the population with safe drinking water, the percent of people with access to sanitary facilities, and the rate of infant mortality). Longevity, health, food, and water are among the most basic ingredients of physical well-being and, thus, should correlate with the well-being of nations if Veenhoven is correct. The nations we examined differed greatly in their ability to meet basic needs, and therefore there was an adequate range on this variable to explore its covariation with SWB.

Political and Civil Rights

Nations differ markedly in the liberties they afford their citizens (Gupta, Jongman, & Schmid, 1994). In some there are few civil or political rights, and individuals are at the mercy of the desires of those in power. In others, individuals are largely protected by laws and possess extensive civil rights and freedoms. Based on a number of psychological theories, we hypothesized that nations with greater rights would have greater SWB. First, self-efficacy should be greater in nations in which individuals feel that they have more control over their individual and collective destiny. Second, people are more likely to experience the second of Maslow's needs—security—in nations where individuals have more rights. In such countries, people are less likely to disappear, to be tortured, or to be arrested without charges. Finally, individuals in nations with more rights ought to be better able to meet their needs because they are better able to use diverse behaviors to pursue various courses of action. For example, in order to increase their incomes, people in nations with many rights may move to a new job, go on strike, or organize a boycott. Possessing civil and political rights is thus likely to help individuals to achieve diverse goals, and therefore we hypothesized that it would correlate with SWB.

Income Growth

Diener et al. (1993) found that high economic growth was correlated with low SWB. They hypothesized that a rapid rise in income led to lower SWB because rapid growth is likely to be accompanied by high aspirations and also by dislocations such as employment moves and family separation. The Diener et al. sample, however, was limited to college students. Furthermore, the high growth countries in their study were virtually all located on the Pacific Rim of Asia. In the present research, we examined the correlation between the growth of per capita gross domestic product (GDP) of nations and SWB, using broad national samples and a larger and more diverse selection of nations. The relation between income growth and SWB will help shed light on relativistic models that maintain that SWB is due to change in resources rather than to the absolute level of resources. Headey and Wearing (1992) found that recent changes in events led to changes in SWB, and Suh, Diener, and Fujita (1995) replicated this finding. Thus, it may be that changes in people's income are more important to happiness than is the absolute level of income.

Social Comparison

The second relative-standards variable we assessed was the influence of income social comparison on SWB. The idea is that individuals will be happier if their income is higher than a reference standard set by the income of others, but will be less happy if they are below that standard. We previously found that social comparison influences satisfaction in laboratory situations (Smith, Diener, & Wedell, 1989), but did not find these effects in natural situations (Diener et al., 1993; Fujita, Diener, & Gallagher, 1994). Although it seems plausible that the effects of one's income on one's SWB will depend on the income of salient others, our past findings indicate that it is difficult to predict

when this will occur in natural situations. We tested three different possible manifestations of social comparison effects.

First, we examined the effects of having wealthy versus poor neighboring countries on the SWB of a society. People may set their economic aspirations based on those around them. If the citizens of neighboring countries possess a high standard of living, this may raise people's aspirations. If social comparison across neighboring borders influences SWB, we should find that nations with poorer neighbors have higher well-being, whereas nations with richer neighboring countries should have lower SWB. Michalos (1991) hypothesized that individual social comparisons influence the SWB of people. It may be that the wealth of neighboring countries has an analogous influence on the average SWB within a country. The nations we studied varied from those whose neighbors were on average richer (e.g., Belgium) to those whose neighbors were on average poorer (e.g., Singapore).

The second social comparison measure was based on the skewing of income within nations. Parducci (1984) has argued that negatively skewed distributions will produce more happiness, and positively skewed distributions will produce less happiness. Smith et al. (1989) extended Parducci's argument to the case of social comparison and showed in a laboratory study that positively skewed distributions led to less satisfaction. In a highly positively skewed situation, a few individuals score very high and the rest score lower than this elite group. Therefore, satisfaction is lessened because most individuals have poor outcomes relative to the privileged group. In order to test this approach across nations, income skewing for nations was correlated with average SWB. We hypothesized that nations with more positively skewed income distributions (a few individuals making much more money than everyone else) would report lower mean SWB.

In the third approach to social comparison effects, we correlated the income standard deviations within countries with the standard deviations of SWB within nations. The idea was that, to the extent that comparison of one's income with the income of others in the same nation influences SWB, there should be more spread in SWB in nations in which there is more variability in income. If poor individuals are further from the mean income within their nation, their SWB should also be further from the mean. Based on the same reasoning, if wealthier individuals are only slightly richer than the mean in their country, their happiness ought to be only slightly above average. Thus, we predicted, based on social comparison effects for income, that nations with more spread in income ought to have more spread in SWB.

Equality

Equality among individuals is a major way that societies differ from one another. We examined equality of length of life, equality of income, and equal access of the sexes to education in terms of their ability to predict SWB. We hypothesized that equality would predict SWB for several reasons. First, it seems likely that a greater percentage of individuals will be able to achieve their goals in nations where there is relatively more

equality. Second, where inequalities are great, issues of equity and social justice are likely to arise.

Independence–Interdependence

A broad cultural variable that may potentially influence SWB is individualism–collectivism (I–C; Triandis, 1989), which is also labeled independence–interdependence (Hofstede, 1980, 1991; Markus & Kitayama, 1991). In individualistic societies, people are oriented toward their personal goals and desires, and they perceive the individual as the basic unit. In contrast, collectivists view the group as of primary importance and focus their attention on achieving group goals. Although the I–C dimension is one of the most pervasive ways that cultures differ, its effects on SWB cannot be predicted with certainty. In collectivist cultures, there might be greater feelings of social support, which ought to enhance SWB. In individualistic cultures, however, there is more personal freedom, and individuals have more ability to pursue their individual goals. Furthermore, individualists are likely to place more value on personal well-being and thus seek SWB to a greater extent. However, because of high internality, individuals in individualistic cultures might feel more responsible for both their failures and successes. Thus, we examined the correlation between the I–C dimension and SWB but did not make firm predictions about the direction of this relation. The countries we examined varied from quite collectivist (e.g., Bangladesh and Cameroon) to very individualistic (e.g., the United States and Australia), with all levels in between. Therefore, there was sufficient range to uncover a relation between SWB and individualism.

Cultural Homogeneity

A variable that has not yet been studied in reference to SWB is the cultural homogeneity of countries. In recent years divisions between diverse cultural groups led to intense conflict in a number of nations. Indeed, internal differences led to the breakup of several of the nations we studied. It may be that countries which are more homogeneous in terms of ethnicity, religion, language, and culture will suffer from less internal strife and have greater political unity. Interpersonal relationships may be more harmonious in culturally homogeneous countries where social expectations are more uniform. Individuals in homogeneous countries possess similar norms for behavior and thus are less likely to experience conflicts based on differences in values and beliefs. Therefore, we predicted a positive correlation between the homogeneity of people within a country and their aggregate level of SWB. Again, we were in the position to give this hypothesis a strong test because our sample of countries included many nations in both the homogeneous (e.g., Denmark) and heterogeneous (e.g., Tanzania) categories.

Conclusion

We examined four SWB surveys in a total of 55 countries, with a combined population of 4.1 billion people. These surveys included a total sample of over 100,000 respondents. The results of these surveys were correlated with objective nation-descriptive variables. Because our sample of countries was much

larger and much more diverse than those included in previous studies, and because we included a number of predictor variables that were each assessed through multiple measures, we expected to reach firm conclusions on several correlates of the subjective well-being of nations. Furthermore, because we analyzed a number of surveys for each country, we could examine the convergence between SWB surveys and examine the replicability of findings.

Method

National Surveys

Veenhoven (1993) compiled the results of national SWB surveys. We used data from these surveys in this study. For example, one survey asked respondents how happy they were and gave three response options varying from *very happy* to *not too happy*. In another survey people were asked how satisfied they were with their lives, and the 11 response options varied from *very satisfied* to *not satisfied*. For each country, we used the last survey that was reported by Veenhoven. In the case in which there was only one survey in a country, that survey was used. In order to calibrate different surveys, Veenhoven carried out a procedure of assigning a value from 0 to 10 for each response option in each survey. These values were derived from 10 expert ratings of how positive each response option appeared to be. Thus, the response options from every survey were given a calibrated value varying continuously from 0 to 10. The expert raters were persons working on the World Database of Happiness (Veenhoven, 1993) and were therefore individuals who were well acquainted with the different SWB scales. Thereafter, the scale values were multiplied by the number of respondents with each response in each survey. An average SWB value was then computed for each survey for each nation, and this value could vary from 0 to 10. Thus, even though different surveys with different response formats were involved, the results were all weighted so as to achieve a Thurstone SWB scale for each survey. In summary, the Last National Survey variable represents Veenhoven's 0 to 10 Thurstone value for each country for the last (or only) survey conducted in that nation.

For countries in which more than one survey was conducted, we separately calculated the value for "happiness" surveys and surveys of "life satisfaction." In this case, rather than use Veenhoven's weights, we standardized each survey (with a mean of 0 and *SD* of 1.0) across all nations using that instrument. Where there were multiple types of surveys using the same basic question (but different response formats), we computed separate means for surveys involving the root term *happiness* and for surveys querying *satisfaction*. This allowed an alternative method of comparing surveys when they involved different response formats. When identical survey instruments were administered a number of times within a country, data from the last administration (not counting the "Last Survey") were used. The standardization and averaging procedure allowed us to achieve an average across surveys using a method very different from that used by Veenhoven. In this case, we did not prejudge the value of the responses, but used standardization against all nations using that survey instrument. Thus, we calibrated surveys with different response formats by giving them all a standardized score. Although there are pros and cons to the procedures used by Veenhoven and by us, the strength is that we can compare the results of two very different procedures of averaging survey instruments to examine the convergence of the results. Unfortunately, the data were not reported by Veenhoven by sex, so gender analyses could not be performed.

Sampling within nations. National probability samples of each country where SWB was measured were summarized by Veenhoven (1993; e.g., Eurobarometer, 1991; Gallup, 1976). Data on convenience samples (e.g., high school students) or limited populations (e.g., young adults) were summarized separately and were not included in this study. Examples of the probability surveys used in our analyses were: the UNESCO's Tension Study, the German Welfare Survey, the Korean survey by the Institute for Social Sciences, Seoul National University, the Eurobarometer annual survey conducted by the Commission of the European Community, and Gallup's Public Opinion Survey. Most national surveys included adults over the age of 17 and were based on a multistage sampling procedure. The first stages included selecting representative samples of large geographical areas (e.g., standard metropolitan statistical areas) and then smaller geographical areas (e.g., census tracts, neighborhoods, or blocks). These geographical areas were typically selected on a stratified random basis to represent key demographic features of the nation. In the final stages, dwelling units were randomly selected, and then the respondent was systematically selected from each housing unit, usually based on procedures described by Kish (1965). Although dwelling units were selected based on probability, the response rates of the selected individuals often varied slightly by groups (e.g., men vs. women) and the number of adults living in dwellings also varied. Thus, many studies included weighting procedures to recognize these factors in the final statistics. Furthermore, some studies undersampled in certain geographical areas and used weighting procedures to compensate for this. Occasionally, exemplary groups were selected to sample hard to reach populations (e.g., Black South Africans living in remote tribal homelands). Because the dwelling unit was used as the preliminary sampling unit, certain groups were underrepresented in most surveys: people living on military reservations, prison inmates, transients, and hospitalized individuals. The percent of respondents not answering the SWB question (given by Veenhoven, 1993) was typically quite small, in the 1 or 2% range. The sampling procedures were always of sufficient quality to yield a broad and heterogeneous participant sample which represented the vast majority of individuals of each nation. Most of the samples contained a margin of error of approximately 2 to 5%. The mean size of the national samples was 1,406, and the smallest sample included 300 respondents.

College Student Survey

During 1984–86, colleagues of Alex Michalos from around the world collected data from college students in their respective countries. The measures asked the students to report how happy they were and how satisfied they were with their lives on 7-point delighted–terrible scales. When more than one university was involved in a country, the data were aggregated so as to achieve an overall happiness and life satisfaction score for that nation. The data, which included 18,032 student respondents, were compiled by Michalos and made available to the collaborators on the project (in this case, to Ed Diener). The Michalos data on Taiwan were excluded from the present analyses because of the lack of information on this nation in many sources (because it is not a member of the United Nations). Although we reported partially on SWB and income and income growth in Diener et al. (1993), it was deemed important to include these data in the present article because more predictor variables were included here, and an analysis of the convergence of the student results with the findings from national samples could be examined. Furthermore, Diener et al., working from the raw data rather than means provided by Michalos, did not include exactly the same countries or participants as are covered here. The Michalos data were averaged across the happiness and life satisfaction questions. We have used a question which is virtually identical to the Michalos satisfaction question with college students in both the USSR and the People's Republic of China (Balatsky & Diener, 1993; Shao, 1993). Therefore, we included these surveys with the Michalos survey. The mean sample size from 40 nations was approximately 390 per nation, and the smallest sample included 91 respondents.

The Sample of Nations

The 55 nations we studied are those included in the review by Veenhoven (1993) and in the study organized by Michalos. Of the 55 nations, data on 43 came from national surveys. The Michalos data and our data included 12 additional nations as well as data that overlapped with the national surveys for 28 countries. Although not sovereign nations, Northern Ireland and Puerto Rico provided data, and so they were included as 2 of the 55 societies studied. Although several of the nations have changed form since the data were collected (e.g., Yugoslavia and the USSR), we used earlier data, and the nations are therefore referred to by their names at the time the data were collected. The sample of nations was not only much larger than that included in past research but was also more diverse in that many past studies focused almost exclusively on highly industrialized countries such as the United States and Western Europe. In addition to the traditional European and North American nations, the present study included six nations from Africa, eight nations from Asia, seven nations from Latin America, three nations from the Middle East, four Pacific countries, as well as several additional scattered countries such as Iceland and the Dominican Republic.

Although the sample sizes are not given for all of the national surveys, it is estimated that about 120,000 individuals in all took part in the surveys we report. The total population represented by the nations included in this study is about 4.1 billion, or almost 75 percent of the world's 1990 population. Thus, the sample is much more representative of the world than past studies, although extremely poor countries and small nations are still underrepresented, and European societies are overrepresented.

Summary of Surveys

To summarize, we used four measures of SWB. One of these measures was from the same large-scale survey of college students organized by Michalos (1991) and involved the average of a life satisfaction and a happiness question. Three additional measures were generated from separate national probability surveys. One was the last survey reported for each country by Veenhoven, with the results being the Thurstone scale he calculated. The other two measures were separately derived for life satisfaction and happiness when additional surveys that covered these terms were conducted in a country. If more than one of these surveys was conducted, the latest survey using each response format was used. If more than one response format was used per term in different surveys, we averaged across the response formats by first standardizing each survey type across countries. Thus, the measures of SWB we examined included two types of samples—national and college student—and different years, response formats, and methods of calibrating across surveys. By this use of multiple methods, we explored the replicability of our findings.

Predictor Variables

For each predictor concept, three measures were obtained that represented differing manifestations of the construct in question.

Wealth. Measure 1: Figures for per capita wealth of most nations were obtained from Wright (1992) and Hoffman (1991), and from references on specific countries. The figures represent the gross domestic product (GDP) of the country divided by the population, or GDP per person. When GDP figures were not available, gross national product (GNP) was used. Our sample of nations included some of the poorest in the world (Tanzania, Bangladesh, and India) and most of the wealthiest nations in the world (e.g., Switzerland, Luxembourg, Finland, and Japan).

Measure 2: A second measure of income was the per capita income of nations in terms of the purchasing power of individuals (World Development Report 1994). Purchasing income across nations was computed by taking a standard basket of market goods and computing how much of this could be purchased with the mean per capita income in each nation. Thus, this index considers income in light of consumer price information in each nation. The U.S. value is set at 100 because it has the highest per capita purchasing power, and other nations are expressed as a percent of this. Thus, purchasing power is defined as how much the per capita GNP of a nation would buy (the amount of a fixed basket of products in the domestic market) as one dollar would buy in the United States. For example, India scored 5 on this index, Poland scored 33, and Switzerland scored 96. Scores varied from 3 for Tanzania to 100 for the United States (see Table 1).

Measure 3: The fulfillment of basic physiological needs was indexed in each nation by five variables: the percent of the population having safe drinking water in 1986–87, the rate of infant mortality rate per 1,000 in 1990, the mean life expectancy in the nation in 1990, the percent of people having sanitary toilet facilities in 1986–87, and the average daily calorie supply per person in 1989. These figures were obtained from Wright (1992). The mean correlations of these variables with each other (with infant mortality reversed to the positive direction by computing the inverse value) was .74. The five variables were standardized and averaged to create a composite basic need fulfillment score for each nation. The Cronbach's alpha for the combined Basic Needs score, when all five components were available, was .93.

Rights. Gupta et al. (1994) assigned each nation a score on the degree to which they possessed 40 different human rights. A discriminant function across countries revealed that these rights fell onto three related dimensions: Measure 1. Gross human rights violations (e.g., disappearances, extra judicial killings, detention without charge, and torture); Measure 2. Civil rights (e.g., no searches without warrant, independent courts, innocent until proven guilty, no secret trials, freedom to teach ideas, and no arbitrary seizure of property). This figure is given in Table 1; and Measure 3. Political rights (e.g., freedom of the press, freedom to peacefully assemble, multiparty elections by secret ballot, and independent trade unions allowed). Based on a weighting of these 40 indicators, Gupta et al. computed the three rights scores for each nation. A low score represents more rights on all three scales.

Growth of wealth. The growth of wealth statistics were obtained primarily from data contained in the *Universal Almanac* (Wright, 1992) or from the *International Monetary Fund* (1992). These figures, shown in Table 1, are 1-year growth figures of GNP per person. The growth of real wealth (adjusted for inflation) covered a large range varying from −3.0 to 9.5.

Income social comparison. Measure 1: First, the average income per capita of neighboring nations was computed for each country. The GDP per capita of each nation bordering the target country was determined, and a mean value for all bordering nations was computed for every society. In the case of island nations such as Iceland, Japan, and Australia, the closest and most similar nations were used as the bordering countries. For the majority of nations, however, the nations that bordered the target country were used. For example, for Canada, the United States was used; for Sweden, Norway and Finland were used; and for Panama, Colombia and Costa Rica were used. The idea is that if a country is surrounded by nations that are much poorer or much richer, this should serve as a comparison basis for the citizens of the target nation and therefore influence their SWB. Although we cannot be sure that adjacent nations are always the primary referent countries, because of their propinquity and relatively greater similarity, it seems plausible that comparison with neighboring nations is on average more likely than comparison to distant countries.

Measure 2: The second method of analyzing social comparison effects was based on the skew of income distributions within nations. The pos-

Table 1
Values of Mean SWB and Specific Predictor Variables

Nation	SWB	Last nat. survey	Purchas. power	Civil rights	GDP growth	Soc. comp neighbor	Income Gini	Triandis indiv.	Ethnic divers.	Sample N
Iceland	1.11	1.22			1.2	18610		7	1	690
Sweden	1.03	1.22	80.5	4.41	1.8	24595	.32	8	1	1038
Australia	1.02	1.30	76.4	4.42	1.7	4700	.40	9	1	2208
Denmark	1.00	1.38	79.4	4.46	2.1	22730	.33	8	1	1000
Canada	.97	.97	91.0	4.97	2.4	21700	.34	9	3	1254
Switzerland	.94	1.30	95.9	4.96	1.7	19089	.30	9	4	998
U.S.A.	.91	.73	100.0	4.58	2.2	11470	.34	10	2	1526
Colombia	.82		23.8	10.25		1838		3	3	(91)
Luxembourg	.82	.89			3.9	19217		8	1	300
New Zealand	.82		67.3	4.42	2.0	17080	.38	9	1	(314)
N. Ireland	.78	.97				9550		5		304
Norway	.77	.32	80.1	4.88	2.7	20917	.31	7	1	1233
Finland	.74	1.06	73.1	4.43	3.1	16600	.31	8	2	1003
Britain	.69	.32	73.1	4.84	2.5	14515	.32	9	2	1300
Netherlands	.68	1.06	70.2	4.42	1.4	19085	.27	9	1	1000
Ireland	.57	.32	42.4	5.71	1.1	16070	.31	5	1	1000
Brazil	.57	.49	26.3	7.18	.6	1499	.60	4	3	1000
Tanzania	.51		2.5	10.76	-3.0	353		3	5	(222)
Belgium	.51	.49	71.7	4.46	1.2	22075	.27	7	3	1000
Singapore	.43	.57	55.7	9.57	5.7	2340		5	4	1006
Bahrain	.36				-3.0	10613		3		(275)
W. Germany	.18	.49	80.7	4.58	4.0	18014	.33	8	1	1000
Austria	.15	.57	72.8	5.65	2.0	14070		8	1	1584
Chile	.13		27.7	11.62	-2.0	1383		6	3	(256)
Philippines	.10	.00	10.9	4.87	-1.5	1260	.45	4	4	9961
Malaysia	.08	.08	26.6	10.94	2.5	990	.49	4	4	502
Cuba	.00	.00		10.96		6518		4	3	992
Israel	-.18	-.33	60.5	7.01	1.5	888	.33	6	2	354
Mexico	-.28	-1.72	31.6	9.55	-.9	8190	.52	5	3	2204
Bangladesh	-.29		5.1	10.26	2.0	280		1		(262)
France	-.38	-.33	77.8	4.54	1.7	21250	.35	7	1	1000
Spain	-.41	-.17	50.5	5.10	2.7	12185	.32	6	3	1000
Portugal	-.41	-.49	36.0	5.01	2.4	10920	.41	5	1	1000
Italy	-.44	-.33	71.6	6.03	2.2	18518	.36	6	1	1000
Hungary	-.48	-.41	30.4	9.45	1.5	6016		6	2	1464
Puerto Rico	-.51	-.17				820		7		1417
Thailand	-.62	.08	17.2	9.01	5.6	763	.42	4	2	500
S. Africa	-.63	-.49		11.08	-.9	765		5	4	5587
Jordan	-.77		26.4		1.0	4819		3	1	(279)
Egypt	-.78	-.74	16.4	10.86	2.1	5630	.40	5	2	499
Yugoslavia	-.81	-1.14		9.57	-.9	7146		6	4	1523
Japan	-.86	-.41	74.9	5.03	3.5	2409	.28	4	1	
Greece	-.89	-.90	33.9	4.85	.8	2050		7	2	1000
Poland	-.90	-.90	25.8	10.70	1.2	5913		5	1	1464
Kenya	-.92		6.1	9.88	-1.0	206	.55	3	4	(268)
Turkey	-1.02		21.1	10.97	3.0	2767	.49	4	2	(287)
India	-1.13	-.17	4.6	8.81	3.2	253	.40	4	4	1000
S. Korea	-1.15	-.17	28.8	9.17	8.9	867	.37	3	1	1500
Nigeria	-1.31	-1.31	5.5	10.20	-3.0	480		3	3	1200
Panama	-1.31	-1.31	25.8	6.31	-2.0	1575	.56	4	4	642
E. Germany	-1.52	-.41		10.13		9190		6	1	2000
U.S.S.R.	-1.70		38.7	11.37		4066		6	4	(116)
China	-1.92		6.5	12.58	9.5	552		2	2	(149)
Cameroon	-2.04		15.9	10.69	6.0	902		2	4	(159)
Dom. Repub.	-3.92	-3.92	15.6	6.08	-.4	370		4	3	814
Mean	-.2	6.4	44.7	7.6	1.8	8484.9		5.6	2.3	1143.4
SD	1.0	1.2	29.4	2.8	2.6	7645.2		2.2	1.2	1478.4

Note. SWB refers to the mean standardized value of four surveys (three national surveys plus student survey). Last Nat. Survey is the SWB from last national probability survey. Purchas. Power refers to the per capita income of each nation expressed as percent of the U.S. figure in terms of purchasing power. Civil Rights, a low number denotes greater rights. GDP growth refers to the percentage growth rate of the national gross domestic product. Soc. Comp. Neighbor refers to the income in adjacent nations or the nearest neighbors. Income Gini (income equality) can vary from 0 (complete equality) to 1.0 (complete inequality). Triandis indiv. refers to the national ratings of individualism provided by Harry Triandis. Ethnic divers. refers to the 1 to 5 ethnic diversity of the nations, where 1 is the most homogeneous. Sample N's refer to last national probability sample, except they refer to college student sample where no national samples were available (shown in parentheses).

itive skews of the income distributions within nations were computed based on data contained in the *World Development Report* (1994). The skew was based on the most widely available distribution information, namely the incomes of the lowest, second, and highest income quintiles. A highly skewed distribution resulted when the lowest and second income quintiles were relatively close to each other but far below the richest quintile. To the extent that the second quintile was relatively equidistant between the lowest and highest quintiles, the distribution was less positively skewed. Nations varied from virtually unskewed (Egypt and Portugal) to highly positively skewed (e.g., Chile and Brazil). The prediction was that nations with highly positively skewed income distributions would have lower mean SWB because most individuals would be far below the top incomes.

Measure 3: The third approach to analyzing social comparison was not a single measure, but rather was the correlation between income spread and SWB spread across countries. Income distribution data were obtained from the *World Development Report 1994* and from World Bank (1994). We calculated income spread by computing a ratio of the highest income quintile to the lowest income quintile in terms of earnings. So, for example, in Bangladesh and Spain, the highest quintile income group earns approximately four times as much as the low income group, whereas in Brazil and Panama, the highest income quintile earns approximately 30 times as much as the poorest fifth of people. The standard deviations of SWB within nations were computed based on the last national survey reported by Veenhoven (1993). The income spread ratio was correlated with the standard deviation of SWB in the last national survey. If this correlation is high, it would indicate that nations with a greater range of income also tend to have a greater range of SWB.

Equality. We measured equality of income, of longevity, and of educational access. Measure 1: Equality of income was measured by the Gini coefficients for nations (Veenhoven, 1993). Measure 2: Similarly, the dispersion of length of life was also indexed by Gini coefficients for longevity (Veenhoven, 1993). Gini coefficients range from O (*perfect equality*) to 1.0 (*one individual has all of the resource and others have none*). Measure 3: Equality of the sexes was measured by computing the percent of age-eligible girls attending secondary school compared to the percent of age-eligible boys attending (World Development Report 1994).

Individualism-collectivism. Measure 1: Hofstede (1991) reports I–C scores for 43 of the nations we studied. These I–C ratings are based on questionnaires given to IBM employees throughout the world. Individualism was based on the reporting of work goals related to personal time, freedom, and challenge, whereas collectivism was related to work goals related to training, use of skills, and physical conditions.

Measure 2: A leading expert in the area of individualism and collectivism, Harry Triandis, rated each of the 55 countries on a 1 to 10 scale on which 1 was the most collectivistic and 10 was the most individualistic (see Table 1). Triandis was unaware of the data being used and unaware of the hypotheses being examined.

Measure 3: The third measure of I–C was the divorce rate in each nation (1992 Demographic Yearbook, United Nations, 1994). This variable was thought to reflect individualism for several reasons. Nations where divorce is high are more likely to emphasize the rights of individuals over the importance of collective relationships. Divorce represents a decline in obligation, duty, obedience, and other collective values. Instead, divorce is a manifestation of people seeking their own individual goals and happiness. Furthermore, divorce is not just a manifestation of individualism, but in turn is a cause of heightened individualism. The children of divorce, as well as other observers, see that relationships are not necessarily lasting and that individuals may ultimately have to rely heavily on themselves.

Cultural heterogeneity. Measure 1: Estes (1986) reported on several variables for a large number of countries. Among these variables was one labeled cultural homogeneity, which was composed of three factors: the largest percent of the population in a nation speaking the same language, the largest percent of the nation who shared the same or similar ethnic and racial background, and the largest percent of a nation who shared the same religion. Based on this composite, Estes rank ordered the countries from *most homogeneous* (1) to *most heterogeneous* (124), and we used this rank order as one homogeneity score.

Measure 2: Sterling (1974) grouped nations based on their degree of ethnic (culturally distinct groups) homogeneity. We used these groups to assign the following values to nations: 1 = nations with nearly homogeneous ethnic composition; 2 = nations with a single dominant ethnic group; 3 = nations with two major ethnic groups; 4 = nations with several major ethnic groups; and 5 = fragmented nations with many small ethnic groups. These ethnic homogeneity ratings are shown in Table 1.

Measure 3: Our third measure of heterogeneity was a rating by Taylor and Jodice (1983) of separatism within nations. They defined separatism as group activity seeking greater autonomy for a group or region, or the structural preconditions for such activity. An example of the latter is where a region populated by an ethnic group was forcibly incorporated into a nation during the twentieth century. Taylor and Jodice rated the intensity of separatist activity as well as the percent of the population in the society that is involved. Our separatist score is the product of the intensity times the percent figures for the latest year for which figures were available.

Results

Descriptive Data

Values for selected major variables for each country are presented in Table 1. The nations are ordered from the highest in mean subjective well-being to the lowest. The SWB that is shown in the left column of numbers is the mean figure derived across the four surveys (three national surveys and one college student survey, see below). Several nations scored unexpectedly high in SWB (Colombia and Tanzania), perhaps because only the student survey was available from those societies. The mean SWB figures can be compared to the level of subjective well-being found in the last national survey (shown in the next right column). Although the last National Survey is based on Veenhoven's (1993) zero to ten value, we report the scores here as in terms of standard scores across the last survey so that the scale values can be more easily compared to the mean of all four surveys.

The value of one predictor variable from each concept is shown in Table 1. In addition, the sample size of the last national survey is listed (or the *N* of the college survey if no national surveys were available). As can be seen, there was substantial variation on all variables, thus permitting correlations to emerge. Because of missing data for some nations, the following analyses contain somewhat different *N*s.

Convergence of SWB Surveys

The convergence between the four SWB surveys is shown in Table 2. As can be seen, there was a high degree of convergence between SWB scores. The national surveys, conducted in different years with different measures, correlated an average of

Table 2
Intercorrelations of SWB Measures Across Nations

Sample and sample size	Mean SWB	Last national survey	Prior happiness	Prior life satisfaction
Number of nations	55	43	32	28
Last national survey	.91***			
Prior happiness	.89***	.65***		
Prior life satisfaction	.92***	.67***	.80***	
College survey (N = 39)	.88***	.49**	.46*	.71***

*p < .05.   **p < .01.   ***p < .001.

.71 with each other, and the measures from the college student survey correlated at a moderately high level with the national surveys (mean r = .55). When the four surveys of SWB were analyzed using principal-components analyses, one strong component emerged (eigenvalue = 3.01) which accounted for 75% of the variance in SWB scores. No other eigenvalue exceeded one and the plot of eigenvalues also indicated a one-factor solution. With only one component, no rotation of factors was possible. The component loadings were: Last National Survey = .76; Average Happiness = .94; Average Satisfaction = .92; College Student Happiness and Satisfaction = .84. This indicates that the various surveys were assessing the same construct. This component scale had a Cronbach's alpha of .88, and correlated highly with the individual scales. In order to create a more stable score with more surveys, and also covering more nations, the mean of the four surveys was computed and is shown in the table as mean SWB.

Convergence of Predictor Variables Within Concept

Table 3 shows the intercorrelations of the predictor variables within concept. The numbered variables across the top of the table refer to the corresponding measures within each concept. So, for instance, the intercorrelation of the three individualism measures is shown under Individualism. For example, the Hofstede (measure 1) and the Triandis (number 2) measures correlated with each other .83. It should be noted that under equality, girls in high school was scored in the opposite direction from the other two variables, and therefore convergence is indicated by inverse correlations. As can be seen, almost without exception, measures converged well with other measures of the same concept. One clear exception is for social comparison, where the two measures varied inversely.

The correlations between the various survey measures of SWB and the predictor variables are presented in Table 4. In addition to individual measures, the table also shows correlations with a principal-component score for each of the concepts. No component score was created for social comparison because the third index of social comparison was an overall correlation instead of individual nation scores and because the other two variables correlated inversely. The principal-components loadings are shown in the right column in Table 3. As can be seen in Table 3, the component loadings were high. The eigenvalues and percent of variance accounted for by each component were: Income 2.72 (91%); Rights 2.77 (92%); Equality

1.97 (66%); Individualism 2.58 (86%); and Heterogeneity 2.18 (73%). High alphas for the components also provided evidence that the three variables for each concept formed homogeneous scales: Income = .95; Individualism = .92; Rights = .96; Equality = .73; and Homogeneity = .80.

Predictors of SWB

As can be seen in Table 4, income, individualism, and human rights were consistent and significant predictors of SWB. Virtually without exception these three predictors replicated across the SWB measures as highly significant correlates of SWB. Linear regression analysis indicated the income, rights, individual-

Table 3
Convergence of Measures Within Concepts

Measure	Concept 1	Concept 2	Component loading
Income			
1. GDP per capita			.95
2. Purchasing power	.95***		.98
3. Basic needs	.76***	.86***	.92
Rights			
1. Gross violations			.94
2. Civil	.89***		.98
3. Political	.83***	.94***	.96
Social comparison			
1. Income positive skew			
2. Neighbors' income	−.38*		
Equality			
1. Income Gini			.76
2. Longevity Gini	.66***		.95
3. Girls sec. school	−.34	−.57**	.70
Individualism			
1. Hofstede measure			.94
2. Triandis rating	.83***		.93
3. Divorce rate	.78***	.53***	.91
Heterogeneity			
1. Ethnic diversity			.96
2. Cultural heterogeneity	.86***		.87
3. Separatism	.39***	.48***	.68

Note. Numbers across the top of the table refer to each of the measures within a concept. Thus, the correlations of variables are shown only within each of the italicized concept groupings.
*p < .05.   **p < .01.   ***p < .001.

Table 4

Correlations of Predictor Variables with Subjective Well-Being Measures

Concept Measure	Mean of 4 surveys	Last national survey	Prior happiness survey	Prior satisfaction survey	College survey
Money					
Component score	.59***	.64***	.51**	.61**	.48**
GDP per capita	.58***	.66***	.43*	.57**	.47**
Purchasing power	.61***	.64***	.57**	.64***	.53***
Basic needs	.52***	.55***	.37*	.60***	.38*
Rights					
Component score	−.48***	−.40*	−.53**	−.65***	−.62***
Gross violations	−.46***	−.36*	−.50**	−.66***	−.57***
Civil	−.46***	−.40*	−.48**	−.61***	−.61***
Political	−.46***	−.38*	−.52**	−.61***	−.60***
Income growth					
GDP/capita growth	−.08	.40*	−.22	−.21	−.44**
Social comparison					
Income positive skew	−.10	−.13	−.03	−.25	.04
Neighbors' income	.58***	.55***	.49*	.61***	.58***
Equality					
Component score	−.48*	−.43	−.52*	−.62**	−.10
Income Gini	−.43*	−.49**	−.10	−.15	−.24
Longevity Gini	−.40*	−.35	−.39*	−.56**	−.04
Relative % girls in secondary school	.43**	.16	.34	.59**	.41*
Individualism					
Component score	.77***	.73***	.60**	.74***	.72***
Hofstede measure	.61***	.65***	.51**	.58**	.58***
Triandis rating	.55***	.59***	.40*	.59***	.61***
Divorce	.31	.50**	.04	.57**	.37*
Heterogeneity					
Component score	−.22	−.21	.09	−.26	−.21
Ethnic diversity	−.21	−.27	.05	−.29	−.09
Cultural heterogeneity	−.13	−.12	.09	−.21	−.11
Separatism	−.25	−.22	−.01	−.27	−.35*

Note. For rights and equality, a low score indicates more of that quality. GDP = gross domestic product.
$* p < .05.$ $** p < .01.$ $*** p < .001.$

ism, and equality component scores produced a multiple R with mean SWB of .85, $F(4, 12) = 8.03$, $p < .01$. Not only did the component scores consistently correlate with SWB, but each of the individual measures usually did as well. It is interesting to note that the satisfaction survey produced stronger correlations with the predictor variables than did the happiness survey. This finding suggests that the predictors may more strongly influence cognitive judgments of well-being than they influence positive affective reactions.

For equality all correlations were in the expected direction, but not all were significant. Heterogeneity tended to be inversely correlated with SWB, but virtually none of the correlations were significant. Growth produced two significant correlations that were in the opposite direction of each other, and three nonsignificant correlations.

For social comparison, neighbor's income produced an effect opposite to that predicted—nations with wealthy neighbors were happier (to be analyzed further below). The positive skewing of income did not correlate with the SWB of nations. Furthermore, the correlation between the spread of income of nations and the spread of SWB was small and nonsignificant, $r(23) = .19$. Thus, for the three social comparison measures,

only one was significant–and it was in the opposite direction to that predicted by a simple social comparison approach.

Further analyses were conducted on the neighbor income comparison. The correlation between a nation's per capita income and that of its neighbors was $r(53) = .80$, $p < .001$. This indicates that income is highly regionalized in the world, with some areas being predominantly poor and other regions being predominantly wealthy. The regionalization of wealth means that the income of one's neighbors correlated positively with SWB because a nation with wealthy neighbors was itself likely to be wealthy. Therefore, we also computed a partial correlation in which the effect of neighbors' income was correlated with mean SWB when the income component of nations was controlled. The partial correlation with 43 degrees of freedom was .22, *ns,* indicating that social comparison across neighboring nations did not strongly influence SWB. Indeed, this partial correlation remained in the opposite direction to that predicted by social comparison.

Similar neighboring country analyses were computed for rights (political), individualism (Triandis rating), and equality (income Gini). When a neighboring nation possessed more rights, the target nation had higher SWB: $r(53) = −.50$, $p <$

.001, and this correlation remained even after partialing out the target nation's level of rights: $r(46) = -.31$, $p < .05$. The individualism of neighboring nations also correlated significantly with the mean SWB of the target country: $r(53) = .51$, $p < .001$, but this association became nonsignificant when the target nation's individualism was partialed out: $r(52) = .17$. The neighboring nations' equality did not correlate significantly with mean SWB. Thus, across four dependent variables, an analysis of neighboring nations produced no support for a social comparison and SWB link, and in several cases was in the opposite direction.

Basic Needs and Income

An important question is whether income correlates with SWB beyond the influence of basic need fulfillment. In order to control the effects of basic needs, partial correlations between GDP/person and SWB, and Purchasing Power and SWB were calculated with the Basic Need Fulfillment score held constant: GDP/person and Mean SWB $r(50) = .33$, $p < .05$; and Purchasing Power and Mean SWB $r(43) = .37$, $p < .05$. In other words, although the correlations decreased when basic need fulfillment was controlled, the correlations remained significant.

Another way to approach the question of basic needs versus purchasing power in terms of their influence on SWB is to examine the plots of these variables. Figure 1 shows the relation of basic needs to purchasing power. There is a clear curvilinear shape to this relation in that there is a steep rise in basic need fulfillment across the lower income nations, but once nations reach 40% of the purchasing power of the United States there is little further increase in meeting basic needs. This conclusion
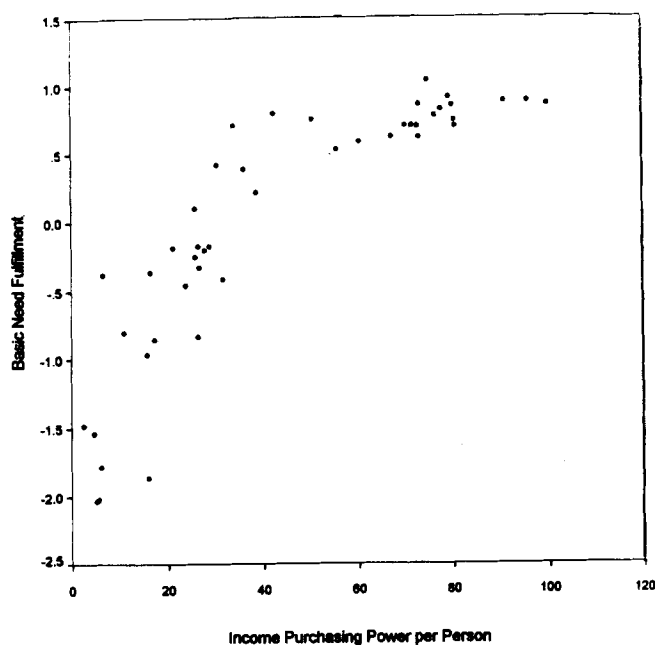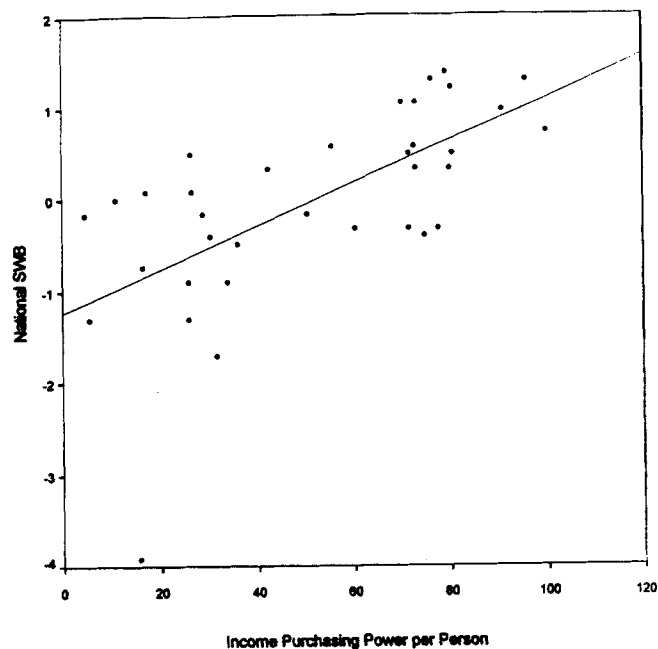

Figure 2. The relation between subjective well-being and purchasing power.

based on visual inspection of Figure 1 is supported by a regression analysis that includes the quadratic component of Purchasing Power. Whereas the linear component of Purchasing Power produces an R^2 of .73 with basic needs, the R^2 increases to .85 when the quadratic component is included (quadratic beta = -1.52, $p < .001$). In contrast, Figure 2 shows the relation between Purchasing Power and Mean SWB. No curvilinear effect can be seen, and there is not a levelling off of mean SWB at a Purchasing Power of 40. The regression analysis supports this conclusion in that the linear R^2 is virtually identical to the R^2 that includes the quadratic component, .372 versus .375 (quadratic beta = .23, NS). For SWB and GDP/capita there also was no curvilinear component.

Interrelation of Predictors

Table 5 presents the intercorrelations of the Predictor Component Scores with each other, as well as with the income growth variable. It is evident that several of the predictors correlated significantly and substantially with each other. Thus, we explored the independent influence on SWB of several of the predictors with the effects of other predictors controlled. Income, individualism, equality, and human rights were selected because they were the ones that correlated significantly and consistently with SWB, as well as with each other. Table 6 reveals the correlations of each component score with SWB when each of the other component scores was controlled. As can be seen, individualism remained a very strong predictor when each of the other components was controlled. The strong relation between individualism and SWB is shown in Figure 3. In contrast, the partial correlations for rights and equality all dropped to

Figure 1. The relation between basic need fulfillment and purchasing power.

Table 5
Intercorrelation of Predictors

Predictors	Income component	Individualism component	Rights component	Heterogeneity component	Equality component
Individualism component	.80***				
Rights component	-.80***	-.75***			
Heterogeneity component	-.50***	-.21**	.44***		
Equality	-.84***	-.32	.80***	.59*	
Income growth	.17	.14	.03	-.44**	-.37

Note. Low scores on equality and rights indicate more of that quality.
* $p < .05$. ** $p < .01$. *** $p < .001$.

nonsignificance when the other variables were controlled. Income dropped to nonsignificance when individualism or equality were controlled. Thus, only individualism showed consistently unique variance in predicting SWB.

We also partialed out the effects of income growth on the correlation between SWB and income. The partial correlation of the income component and the mean SWB score with growth controlled was (41) .62, $p < .001$. In contrast, when the income component was partialed from the income growth and mean SWB relation, the correlation was inverse and nonsignificant, (41) -.23.

Rank-Order Correlations

It could be argued that the surveys provide a rank-order estimate of the SWB of nations rather than an interval estimate. Therefore, Spearman rank-order correlations were also computed. The results were slightly stronger than for the Pearson correlations reported in Table 4. For example, the average Spearman correlation between the three national surveys was .81. Because the Spearman correlations produced no dramatic differences, only Pearson correlations were reported.

Discussion

The strong covariation among surveys, despite different years, sample populations, wording, and response formats, is encouraging. This indicates that, at least at the level of self-report, various scales for measuring SWB tend to yield similar results across countries. The construct validity of the SWB

measures is strengthened by the finding that objective variables can predict them across cultures. The findings also suggest that data based on college students give a moderately accurate estimate of the relative SWB of the populations of nations, but do not converge as highly as national samples do. The high convergence of SWB surveys is desirable, but future research should also explore non-self-report methods of measuring SWB. For example, do measures of smiling, of memories for good events, and of peer reports of SWB also converge well across nations? An interesting lead for future research is whether life satisfaction is more influenced by money and other resources than is affective "happiness" (see also Diener & Fujita, 1995).

Three concepts showed replicable and strong relations with SWB—income, individualism, and human rights. These three concepts produced consistent results across four different surveys and across three different measures of each concept. Although some might object to a particular measure to reflect the concept in question (e.g., basic needs fulfillment as a measure of income), it should be noted that the pattern of correlations replicated across virtually all measures. Also, concepts were intercorrelated and with the exception of individualism, tended not to correlate with SWB when the other concepts were controlled. Thus, there appears to be a general trend of national development including higher income, equality, and human rights, and this general trend correlates with SWB. The covariation of SWB and individualism was so strong, however, that it persisted even when the general economic developmental trend was controlled. Not only is a larger sample needed to completely

Table 6
Partial Correlations of Predictor Variables and Mean SWB

Correlation of predictor variable & SWB	Zero order r	Controlling for:			
		Income	Individualism	Rights	Equality
Income	.59***		-.08	.40**	.40
Individualism	.77***	.62***		.72***	.75***
Rights	-.48***	-.01	.24		-.17
Equality	-.48*	.04	-.39	-.19	

Note. SWB = subjective well-being.
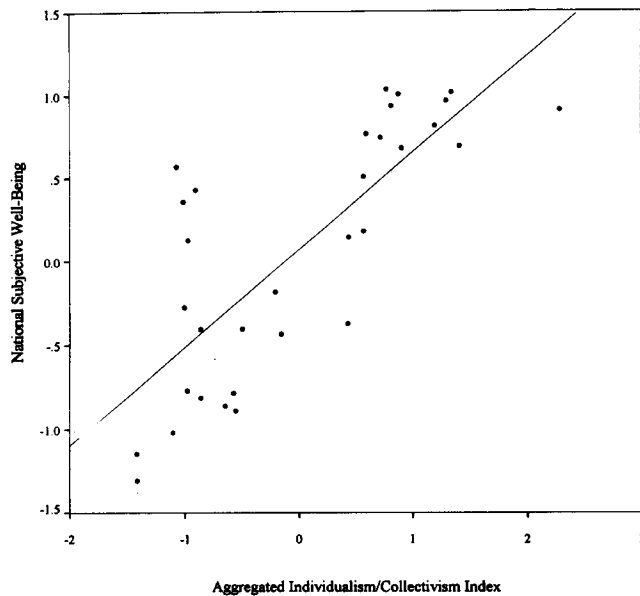* $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 3. Individualism and subjective well-being.

disentangle the effects of these four variables, but longitudinal and causal modeling procedures are also desirable. What can be stated with some certainty is that people in industrially developed nations (with high levels of income, individualism, equality, and human rights) report greater SWB than do people in less developed societies. Together these four predictors accounted for 73% of the variance between nations in mean SWB.

We explored the relation between income, basic need fulfillment, and SWB in more depth because base need fulfillment is not isomorphic with national income. There is clear evidence that income correlated with SWB even when basic needs were controlled. This indicates that economic development has an impact on well-being that transcends meeting basic biological needs such as food, water, health, and sanitation. Even above income levels of $15,000 per person, it is possible that there are increases in interesting leisure pursuits, in potential health benefits, and in self-development through education. It may be, however, that income continues to correlate with SWB even among wealthier nations because there is a common goal of a high level of affluence that few have attained, but after which many strive.

Individualism was a strong predictor of SWB across all surveys. One potential reason that this might be so is that individualistic societies afford an individual more freedom to choose his or her own life course. Another related reason is that successful people in individualistic societies may be more likely to attribute success to themselves. Although individualists may have a weaker social network in times of distress, in favorable times they have more freedom to pursue their individual goals. The individualist–collectivist correlation with SWB is intriguing, and deserves further research effort.

Income growth did not correlate consistently with SWB, and its effect was not positive when absolute levels of income were controlled. In contrast, income correlated moderately strongly

with SWB, and did not decrease when income growth was controlled. These findings indicate that income has a direct influence on SWB that is not mediated by people's past level of income. Thus, there was no evidence for the relative standards approach to SWB that states that it is one's present position relative to one's past position that influences SWB.

The three social comparison approaches did not show any evidence that comparing one's income with that of others influences one's SWB. Indeed, positive correlations existed between the income (and rights) of neighboring nations and a country's SWB, suggesting that having neighbors with positive qualities is beneficial and does not make the citizens of a nation dissatisfied. Even when the rights of the target nations were controlled, there was a significant correlation with the rights in neighboring nations and a nation's SWB. The degree of positive skew of income within nations did not correlate with SWB, and the range of incomes within countries did not correlate with the range of SWB in those societies. These findings cast doubt on social comparison theory explanations of long-term SWB. As such, they are congruent with the findings of Fujita (1993) and Diener et al. (1993). Fujita found that the level of one's roommates and friends on important characteristics did not influence one's own satisfaction ratings in those areas, and Diener et al. found that people with a specific income who were living in either a poorer or richer neighborhood did not differ in SWB. Fox and Kahneman (1992) report evidence that suggests that social comparison judgments may follow from well-being rather than cause it, and Wood (1989) reviews evidence that indicates that social comparison can be used in a very flexible way to enhance one's well-being. Thus, other evidence also points to the fact that exposure in natural settings to others who are better off will not automatically influence one's moods in a negative way.

Social comparison might nevertheless influence SWB in ways not explored here. For example, perhaps people in countries look to other nations which are not necessarily on their borders. For example, southern Europeans might look to Northern Europe rather than to their closest neighbors. Or all nations may look to the U.S.A. because a wealthy version of its lifestyle is widely portrayed in television and movies in many societies. These alternative manifestations of social comparison await testing in future research. What would be required is an a priori specification of which individuals or nations people compare themselves to in each society. It should be noted, however, that direct tests of social comparison have often failed, whereas support for social comparison as a theory of satisfaction has often come from post-hoc explanations of findings. For example, it has been noted that Greece, France, Italy, and Spain report lower levels of SWB than one might expect based on their GDP per person. Is this because these countries are proximal to very prosperous nations such as Switzerland? The problem with this explanation is that other less prosperous European nations such as Ireland, Britain, and the Netherlands who have wealthy neighbors also have relatively high levels of SWB. Furthermore, an alternative explanation for low SWB in Southern Europe is in terms of cultural norms in these societies. Thus, the explanation for the comparatively low levels of SWB in Southern Europe may not be because of social comparisons across coun-

tries. It may be that social comparison is such a flexible cognitive process for achieving heightened SWB that comparisons imposed by one's local environment are not a major cause of differences in long-term SWB.

Cultural homogeneity, a nation of people sharing the same language, level of wealth, culture, and religion, also did not relate to higher SWB. The fact that homogeneity correlates with other factors that correlate with well-being (e.g., income and rights) makes it even more surprising that there is so little relation between this variable and SWB. It may be that cultural homogeneity has costs as well as benefits. For example, culturally homogeneous societies may be less varied and interesting. Alternately, most people's everyday lives may be largely confined to interactions with their own cultural group, and therefore homogeneity may not have an impact. Nations differ greatly in their homogeneity, a factor often overlooked by researchers. It is unknown why this variable does not influence SWB in this set of surveys, but given the apparent importance of this variable, further exploration of it is warranted.

Responses people give in reporting their happiness and life satisfaction relate in systematic ways to some predictor variables and not to others. The current results indicate with some certainty that the SWB of a nation correlates with income, rights, and the degree to which basic needs are fulfilled for the majority of its citizens. This pattern suggests that efficacy in terms of meeting one's needs, and an ability to pursue one's goals may be important cross-cultural factors in achieving SWB. Income allows one to achieve material goals, whereas rights and equality mean that a greater percentage of citizens have freedom and opportunity to pursue a wide variety of goals. Furthermore, individualism continued to be a strong correlate of SWB even when other predictors were controlled. Thus, a feeling of autonomy may be important in achieving SWB. In contrast to the successful predictors of SWB, relative standards approaches—social comparison and change from the past—failed to predict levels of SWB. This suggests either that long-term well-being is based on universal needs and desires, or that it is based on people's ability to select and pursue their goals. The relative standards we assessed did not have a large impact on SWB, and therefore it seems that these particular comparison standards were not critical in determining people's goals. These data indicate that having rights, material prosperity, individual freedom, and equality are more important to long-term SWB in the modern world than is how many resources others have or how many resources one had in the past.

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1996 APA Convention *Call for Programs*

The *Call for Programs* for the 1996 APA annual convention appears in the September issue of the *APA Monitor.* The 1996 convention will be held in Toronto, Ontario, Canada, from August 9 through August 13. The deadline for receipt of program and presentation proposals is December 1, 1995. Additional copies of the *Call* are available from the APA Convention Office, effective in September. As a reminder, agreement to participate in the APA convention is now presumed to convey permission for the presentation to be audiotaped if selected for taping. Any speaker or participant who does not wish his or her presentation to be audiotaped must notify the person submitting the program either at the time the invitation is extended or before the December 1 deadline for proposal receipt.