Development, Freedom, and Rising Happiness

A Global Perspective (1981–2007)

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ABSTRACT—*Until recently, it was widely held that happiness fluctuates around set points, so that neither individuals nor societies can lastingly increase their happiness. Even though recent research showed that some individuals move enduringly above or below their set points, this does not refute the idea that the happiness levels of entire societies remain fixed. Our article, however, challenges this idea: Data from representative national surveys carried out from 1981 to 2007 show that happiness rose in 45 of the 52 countries for which substantial time-series data were available. Regression analyses suggest that that the extent to which a society allows free choice has a major impact on happiness. Since 1981, economic development, democratization, and increasing social tolerance have increased the extent to which people perceive that they have free choice, which in turn has led to higher levels of happiness around the world, as the human development model suggests.*

Psychologists, economists, biologists, sociologists, and political scientists have long investigated human happiness, and one claim found widespread acceptance until recently: Happiness remains constant. Research implies that neither rising prosperity nor severe misfortune permanently affect happiness. After a period of adjustment, individuals return to their baseline levels of well-being, leaving humanity on a "hedonic treadmill" (Brickman & Campbell, 1981; Diener, Suh, Lucas, & Smith, 1999; Kahneman, Krueger, Schkade, Schwartz, & Stone, 2004). Similarly, as entire countries become richer, relative gains and losses neutralize each other across populations, bringing no overall increase in the happiness of their citizens (Easterlin, 1974; Kenny, 2004).

Moreover, biological factors are closely linked with a sense of well-being (Ebstein, Novick, Umansky, Priel, & Osher, 1996; Hamer, 1996), and twin studies suggest that happiness is heritable to a significant extent (Lykken & Tellegen, 1996; Lyubomirsky, Sheldon, & Schkade 2005). Individual differences in happiness may therefore reflect inherent differences in temperament and consequently resist change (Diener & Lucas, 1999). One widely accepted view is that happiness fluctuates around a fixed set point (Headey & Wearing, 1989; Larsen, 2000; Williams & Thompson, 1993). Insofar as this set point is biologically determined, neither individual efforts nor social policy can bring lasting changes in happiness.

Another explanation for the apparent stability of the aggregate happiness of nations is social comparison theory (Easterlin, 1974, 2003). According to this account, happiness stays the same in the face of rising income because of a shift in reference. If happiness is shaped by one's relative position in a society, then even if a nation's overall economy grows, only those with above-average gains will experience rising happiness, and these increases will be offset by decreases among those with below-average gains.

A large body of evidence does indicate that the subjective well-being (SWB) levels of given countries are stable. For example, Inglehart (1990) demonstrated that life satisfaction levels were very stable from 1973 to 1988 in most West European countries. Diener and Oishi (2000), Easterlin (2005), Inglehart and Klingemann (2000), and Kahneman and Krueger (2006) presented similar findings. But the strongest support for the claim that the happiness levels of countries have not risen over time comes from the United States, which provides by far the longest and most detailed time-series data on SWB. Hundreds of surveys have measured happiness and life satisfaction among the American public in almost every year since 1946. No other country has a comparable database, and the US data show a flat trend from 1946 to the present.

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Because the happiness levels of given societies do not seem to change over time, the idea that economic development brings rising happiness has been widely rejected. Although rich nations show higher levels of SWB than do poor countries, these differences may reflect cultural differences in what happiness means.

THEORETICAL DISCUSSION

Can Happiness Change?

Recent research questions the view that the happiness of individuals is unchanging. Diener, Lucas, and Scollon (2006) demonstrated that the SWB levels of some people can and do change over time. Fujita and Diener (2005) analyzed data from a 17-year German panel study, finding that 24% of the respondents' life satisfaction levels changed significantly from the first 5 years of the study to the last 5 years. Similarly, Lucas, Clark, Georgellis, and Diener (2003) analyzed a 15-year longitudinal study of the effects of marital transitions on life satisfaction. They found that, on average, individuals moved back toward their baseline levels of satisfaction, but a significant numbers of individuals remained above their original baseline level and others remained below it. Individuals are not necessarily trapped on a hedonic treadmill.

What about nations? Findings that happiness can change for individuals do not necessarily mean that the happiness levels of given societies change. Social comparison theory holds that the relative gains and losses of different individuals in a given nation will cancel each other out, resulting in no discernible shifts upward or downward for a society as a whole.

Cross-sectional comparisons of nations show that there is considerable variation in the happiness of their people and that economic development is strongly correlated with happiness: Inglehart (1990, Chapter 1) analyzed data from 24 countries covering a wide range of economic levels and found a .67 correlation between per capita gross national product (GNP) and life satisfaction. He interpreted this as implying that economic development is conducive to rising happiness.

Until now, longitudinal evidence has not provided compelling support for this interpretation. Hagerty and Veenhoven (2003) argued that growth does increase happiness, demonstrating that income was positively correlated with happiness in 14 of the 21 nations for which data were available from 1972 to 1994. However, Easterlin (2005) argued that their findings at the level of specific nations were not robust and relied on different measures of happiness administered to different types of samples and thus failed to control for seasonal effects. Even though they demonstrated an increase in "happy life years" across all nations for which considerable time-series data are available, this result is almost entirely driven by the increase in life expectancy and not by an increase in happiness itself. More recently, Hagerty and Veenhoven (2006) demonstrated statistically significant increases in SWB in four of eight high-income countries and in three of four low-income countries for which a long time series was available, but the evidence did not seem decisive. The authors summed up the debate as follows: "The difference arises from the fact that the available data are not too clear and therefore allow different interpretations. Easterlin reads the data as showing that the glass is half empty, while we see the glass to be half full." (Hagerty & Veenhoven, 2006, p. 422). The claim that happiness has risen in most countries remains unsettled and is not generally accepted.

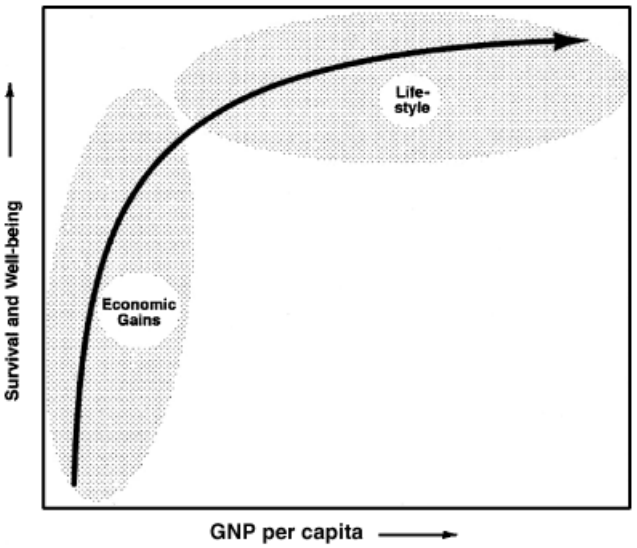

Fig. 1. Economic development leads to a shift in survival strategies. From *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*, by R. Inglehart, 1997, Princeton, NJ: Princeton University Press. Copyright 1997 by Princeton University Press. Reprinted with permission.

The present article reports cross-national longitudinal findings that are not undermined by problems of methodological incomparability. The Values Survey have asked the same questions in the same format to large representative national samples of respondents in scores of countries from 1981 to 2007, allowing a more definitive test of the hypothesis that happiness has increased in most countries (a hypothesis that has been proven true, as we will see later in the article).

Theoretical Frame: Human Development and Happiness

As important as it is to determine if the happiness of nations has changed, it is even more important to understand why it may have changed. Economic development within a nation is a likely starting point for any explanation because it is demonstrably associated with psychological changes that in turn should impact people's happiness (Diener, Diener, & Diener, 1995).

Inglehart (1997) hypothesized that economic development brings a societal-level shift from maximizing economic growth to maximizing SWB (see Fig. 1):

> The transition from a society of scarcity to a society of security brings a dramatic increase in subjective well-being. But we find a threshold at which economic growth no longer seems to increase

> subjective well-being significantly. This may be linked with the fact that at this level, starvation is no longer a real concern for most people. Survival begins to be taken for granted. Significant numbers of Postmaterialists begin to emerge and for them, further economic gains no longer produce an increase in subjective well-being. From a rational actor's perspective, one would expect economic development to eventually bring a shift in survival strategies. Figure 2–4 suggests how this works. At low levels of economic development, even modest economic gains bring a high return in terms of caloric intake, clothing, shelter, medical care and ultimately, in life expectancy itself. For individuals to give top priority to maximizing economic gains, and for a society to give top priority to economic growth, is a highly effective survival strategy. But once a society has reached a certain threshold of development . . . one reaches a point at which further economic growth brings only minimal gains in both life expectancy and in subjective well being. There is still a good deal of cross-national variation, but from this point on non-economic aspects of life become increasingly important influences on how long, and how well, people live. Beyond this point, a rational strategy would be to place increasing emphasis on quality of life concerns, rather than to continue the inflexible pursuit of economic growth as if it were a good in itself. (Inglehart, 1997, pp. 64–65)

This societal-level shift is linked with individual-level value changes, from giving top priority to economic and physical security toward giving top priority to self-expression values that emphasize participation, freedom of expression, and quality of life. Under conditions of scarcity, people focus on survival needs, giving top priority to economic and physical security. Economic development increases people's sense of existential security, leading them to shift their emphasis from survival values toward self-expression values and free choice, which is a more direct way to maximize happiness and life satisfaction.

The underlying theme of this shift in life strategies is to deemphasize external authority and maximize individual autonomy. How it operates is spelled out more fully in the human development model proposed by Welzel, Inglehart, and Klingemann (2003) and Inglehart and Welzel (2005). This model proposes that human development shifts emphasis from the pursuit of happiness through economic means toward a broader pursuit of happiness by maximizing free choice in all realms of life. The belief that one has free choice and control over one's life is closely linked with happiness (Johnson & Krueger, 2006), and this link seems to be universal. Happiness is linked with people's sense of freedom across all major cultural zones (Inglehart & Welzel, 2005, p. 140). In many societies, people value free choice as much as they value economic security (Sen, 2001), and emphasis on freedom increases with rising economic security.

The fact that people change the way in which they pursue happiness does not necessarily mean that they will attain it. But since 1981, these shifts in individual-level values have contributed to societal changes that are conducive to human happiness. Since 1981, self-expression values have become increasingly widespread around the world, contributing to democratization, growing support for gender equality, and growing acceptance of outgroups such as gays and lesbians (Inglehart & Welzel, 2005).

Inglehart (1990) found that happiness is strongly related to democracy (Barro, 1999; Frey & Stutzer, 2000; Inglehart & Klingemann, 2000). This relationship seems to be reciprocal: High levels of SWB are conducive to democracy, and democracy provides a wider range of free choice, which is conducive to SWB (Haller & Hadler, 2004; Inglehart & Welzel, 2005; Ott, 2001; Veenhoven, 2000; Welsch, 2003).

Like democratization, social tolerance broadens the range of choices available to people, thus enhancing happiness. Accordingly, Inglehart and Welzel (2005) found that support for gender equality and tolerance of outgroups were strongly linked with happiness—not just because tolerant people are happier, but because living in a tolerant society enhances everyone's freedom of choice. Similarly, Schyns (1998) argued that gender equality is linked with happiness.

During the late 1980s and early 1990s, dozens of societies experienced transitions to democracy that enhanced freedom of expression, freedom to travel, and free choice in politics. Moreover, from 1981 to 2007, support for both gender equality and tolerance of outgroups increased substantially in most of the countries monitored by the Values Surveys (Inglehart & Welzel, 2005). Furthermore, during the past two decades, low-income countries containing fully half of the world's population have experienced one of the highest rates of economic growth in history, allowing them to emerge from subsistence-level poverty. By a favorable combination of circumstances, societal changes of the past two decades have increased both the prosperity of people in less-prosperous societies and the political and social freedom of people in middle-income and high-income societies, enhancing the extent to which people in both types of societies have free choice in how to live their lives. We hypothesize that these changes have been conducive to rising levels of happiness within entire societies.

THE PRESENT STUDY

The happiness of nations was investigated with data from the World Values Survey and European Values Study, which have carried out five waves of surveys from 1981 to 2007 in scores of countries containing almost 90% of the world's population. All five waves of surveys included two widely used indicators of SWB—happiness and overall life satisfaction—administered in the same format in equivalent translations in every wave.

To test whether happiness levels have risen, we constructed an SWB index using these two indicators. The index provides a broader based and more reliable indicator of the SWB levels of given societies than do either of its two components. We examined the trends on this indicator and its two components in 52 societies.

To test the hypothesis that factors reflecting free choice were conducive to rising levels of happiness, we carried out ordinary-least-squares (OLS) panel regression analysis to analyze societal-level effects and hierarchical linear modeling (HLM) regression analysis to test the interaction of individual-level and societal-level effects, using the SWB index, happiness, and life satisfaction as dependent variables and measures of the feeling that one has free choice and related attitudes as independent variables, while controlling for democratization and growth in per capita gross domestic product (GDP).

Method

Research Participants and Procedure

Over the past few decades, the Values Surveys have interviewed representative national samples of scores of countries, with an average sample size of 1,400 respondents. Over 1,000 publications have been based on these data. Extensive information about publications, findings, fieldwork, and the organization of these surveys can be found at http://worldvaluessurvey.org.[1]

The present article presents the results of cross-sectional analysis based on data from scores of nations containing almost 90% of the world's population. The longitudinal analyses presented here are based on data from the 52 nations for which substantial time-series data are available. "Substantial time-series data" is defined as having surveys from at least two waves that were scheduled to be held at least 10 years apart. Because actual fieldwork sometimes took place earlier or later than targeted, the actual time span between surveys was sometimes less than 10 years and sometimes as much as 26 years. For the average country, we analyzed the changes that took place over a period of 17 years, as measured by almost four surveys per country. Appendix A shows the year of fieldwork for each of the 194 surveys as well as the levels of happiness and life satisfaction and the SWB index score from that survey.

Measures

Life satisfaction was assessed by asking respondents to indicate how satisfied they were with their life as a whole, using a scale that ranged from 1 (*not at all satisfied*) to 10 (*very satisfied*). Happiness was assessed by asking respondents to indicate how happy they were, using four categories: *very happy*, *rather happy*, *not very happy*, and *not at all happy*. These items are sensitive indicators of a broad SWB dimension (Andrews & Withey, 1976), capturing most of the common variance in scores of domain-specific indicators. They were included in all five waves of the Values Surveys.

For a composite measure of SWB, we combined each person's responses to the questions about happiness and life satisfaction to produce an SWB index, giving equal weight to each variable. Because life satisfaction is measured on a 10-point scale and happiness is measured on a 4-point scale, and because the two questions have opposite polarity, the SWB composite was constructed as follows: SWB = life satisfaction − 2.5 × happiness. If 100% of its people were very happy and extremely satisfied, a country would get the maximum score of 7.5. If happiness and life satisfaction were evenly balanced, the country would get a score of zero. If more were people dissatisfied or unhappy than satisfied or happy, the country would get a negative score.

Respondents also indicated to what extent they felt they had free choice and control over their lives, using a scale that ranged from 1 (*none at all*) to 10 (*a great deal*). They also designated groups of people that they would not like to have as neighbors, using a list that included drug addicts, people of a different race, people with AIDS, immigrants/foreign workers, homosexuals, people of a different religion, and heavy drinkers. Responses to these items correlated strongly, with acceptance or rejection of homosexuals being a particularly sensitive indicator of overall tolerance of outgroups. Respondents also indicated to what extent they felt that homosexuality can be justified, using a scale that ranged from 1 (*never*) to 10 (*always*). A number of items in these surveys tapped religiosity, but the most sensitive indicator asked participants to answer the question "How important is God in your life?" using a 10-pont scale ranging from 1 (*not at all important*) to 10 (*very important*). Respondents were also asked, "How proud are you to be (country's nationality)?" Response options were *very proud, quite proud, not very proud*, and *not at all proud*. These items were used to test, respectively, the impact of a sense of free choice, tolerance of outgroups, religiosity, and national pride on SWB.

To measure the impact of economic factors and democratization, we used the society's GDP per capita (purchasing power parity estimates) and economic growth rate from the World Bank database and a measure of a society's level of democracy from the Polity IV project (for information about this project, see http://www.cidcm.umd.edu/polity).

Results

Overall, here is what we found. Cross-sectional data from the 1990 Values Surveys suggested that economic development is conducive to rising levels of SWB; this interpretation was proposed by Inglehart (1997) and Hagerty and Veenhoven (2003). Longitudinal evidence did not seem to support it, however, and it was not generally accepted. The following analyses use a broader and more reliable longitudinal data base than was previously available to test the hypothesis that factors conducive to human choice, such as economic development and democratization, do bring rising levels of SWB. Cross-sectional analysis of recent data confirms that economic development is indeed strongly linked with high levels of SWB, but it also indicates that economic factors are only part of the story. Pooled time-series regression analysis suggests that religion, tolerance

[1] Fieldwork information, questionnaires in the original languages, and reports of findings can be downloaded from this site.

of outgroups, and a society's level of democracy are strong predictors of subsequent levels of SWB, controlling for economic development and a society's initial level of SWB.

Analysis of changes over time suggest that all of the foregoing factors influence SWB mainly insofar as they enable people to have a wider range of free choice. As the years since 1981 have been a period of global economic growth, widespread democratization, and rising social tolerance, this implies that SWB should have increased. And longitudinal evidence from 52 countries for which substantial time-series data are available demonstrate that feelings of free choice did increase from 1981 to 2007 and that SWB increased in an overwhelming majority (fully 77%) of these countries.

Economic Development and Happiness

Figure 2 shows the relationship between economic development and SWB in 88 countries containing almost 90% of the world's population. To maximize reliability, this figure is based on data from all surveys carried out in a given country from 1995 to 2007. We used per capita GDP from 5 years before a country's mean survey, to reflect the time lag between reaching a given level of prosperity and its impact on SWB. The solid curve on Figure 2 depicts the cubic regression line for the relationship between per capita GDP and SWB. If a society's SWB were wholly determined by its level of economic development, it would fall on this line. Happiness and life satisfaction rise steeply as one moves from subsistence-level poverty to a modest level of economic security and then levels off.[2] Among the richest societies, further increases in income are only weakly linked with higher levels of SWB.

As Figure 2 indicates, the aggregate SWB of nations is closely related to economic development ($r = .62, p < .001$). The people of high-income countries are much happier and are more satisfied with life than are the people of low-income countries, and the differences are substantial. In Denmark, 52% of the public indicated that they were highly satisfied with their lives (placing themselves at 9 or 10 on a 10-point scale), and 45% said they were very happy. In Armenia, only 5% were highly satisfied with their lives, and just 6% were very happy. In contrast to the small income-linked differences usually found within most countries, the cross-national differences are extremely large.

The relationship between SWB and economic development is curvilinear, explaining why it is so widely believed that economic development has no impact on SWB. Previous longitudinal studies relied heavily on U.S. data, and the U.S. long ago made the transition from subsistence-level poverty to middle-income status. Among higher income nations, further gains in income bring relatively little change in well-being (Frey & Stutzer, 2000; Inglehart, 1990, 1997; Myers, 1993).

Figure 2 makes another important point. Quite apart from their level of economic development, some types of societies do a better job of maximizing their citizens' SWB than others do. All 13 of the Latin American countries for which there were data showed higher levels of SWB than their economic levels would predict. Conversely, although they are about as rich as Latin America, almost all of the ex-communist societies showed lower levels of SWB than their economic levels would predict. Indeed, Russia and other ex-Soviet states showed lower levels than did much poorer countries such as India, Bangladesh, Nigeria, Mali, and Ethiopia.

Life satisfaction and happiness showed similar patterns, with the Latin American societies being overachievers and the ex-communist societies being underachievers on both indicators of SWB. Across the Latin American countries, 45% of the population described themselves as very happy, and 42% rated themselves as very satisfied with their lives as a whole. In the ex-communist countries, only 12% described themselves as very happy, and only 14% were very satisfied. Though their economic levels are fairly similar, Latin Americans were three to four times as likely to have high levels of SWB.

Communist rule is not necessarily linked with low levels of SWB: China and Vietnam—still ruled by communist parties and currently enjoying high rates of economic growth—showed much higher levels of well-being than the Soviet successor states. The collapse of their political, economic, and belief systems seem to have sharply reduced SWB in the ex-communist societies. Many of them have a damaged national myth. The Soviet Union and Yugoslavia once played prominent roles in the world, which may have brought feelings of pride and satisfaction to many of their citizens. Today, they have splintered into 21 diminished successor states.

Although religion has long been weak in these countries, communist ideology may once have played a role comparable to that of religion. For many decades, communism seemed to be the wave of the future. The belief that they were building a better society may have given a sense of purpose to the lives of many people. It is difficult to understand the rise of the communist movements in Russia, China, and Vietnam without recognizing the motivating power of a belief system that once gave meaning to many people's lives and made them willing to sacrifice their lives for the cause. In Latin America, traditional beliefs in God and country remain strong, but in the ex-communist countries, the collapse of communism has left a spiritual vacuum.

The striking contrast between the SWB levels of Latin America and the ex-communist countries suggests that some types of societies are more conducive to high levels of SWB than are others—quite apart from economic factors. Accordingly, dummy variables for Latin American and ex-communist countries explain a large share of the cross-national variance in SWB, even controlling for economic variables. But this

[2]One can turn this curve into a straight line by performing a log transformation of per capita GNP, but this is simply another way of acknowledging that the relationship between economic development and happiness reflects a curve of diminishing returns. The effects of economic development almost always do show diminishing returns, so economists habitually use a log transformation of the economic measure. This does not change the underlying reality.

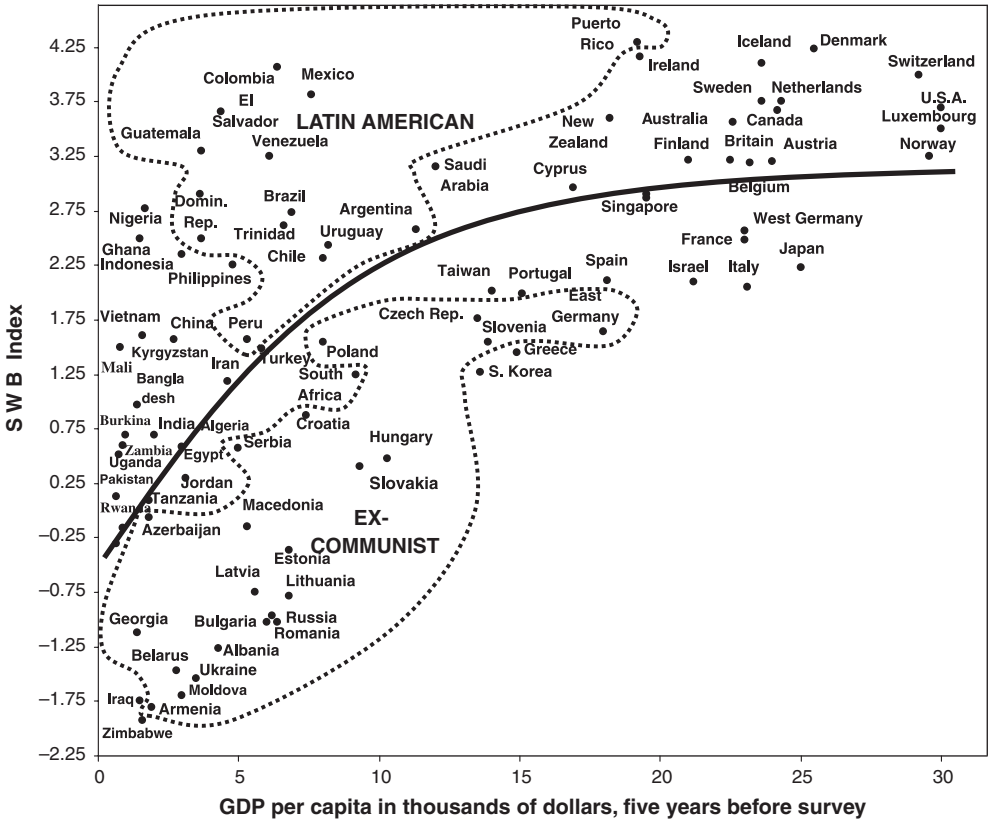

Fig. 2. Subjective well-being (SWB), per capita gross domestic product (GDP), and different types of societies. Well-being index is based on reported life satisfaction and happiness, using mean results from all available surveys conducted 1995–2007 (cubic curve plotted; $r = .62$). PPP=purchasing power parity estimates.

does not explain why these countries show distinctive levels of SWB.

The following regression analyses probed more deeply. To provide complementary perspectives on the factors contributing to changes in SWB, we first used OLS panel regression with data from the 52 countries from which substantial time-series data are available to analyze societal-level factors. Cases were weighted according to the length of time elapsed between surveys, so countries for which the full 26-year time series was available have 2.6 times the weight of countries with a 10-year series. We then used HLM to examine interactions between societal-level factors and individual-level factors.

The pooled time-series regression results in Table 1 predict the level of SWB found in the latest survey from each country, controlling for the initial level of SWB. Models 1.1. and 1.2 use the SWB index as the dependent variable and Models 1.3 and 1.4 analyze changes in the SWB index's two components (happiness and life satisfaction). We found that high levels of religiosity and tolerance of outgroups predict relatively high future levels of SWB. Religion provides a sense of predictability and security, especially under conditions of economic insecurity (Norris & Inglehart, 2004). Until recently, communist ideology filled this function for many people. The collapse of communist ideology, however, left a vacuum in many societies, contributing to a declining sense of well-being. To some extent, growing emphasis on religion has helped fill this void, with a significant impact on SWB.

The extent to which people live in a tolerant society may also shape SWB. Intolerant social norms can narrowly restrict people's life choices, reducing SWB. Tolerance of gender equality, gays and lesbians, people of other religions, foreigners, and other groups tends to be strongly correlated with each other, and at this point in history, the most sensitive indicator of overall tolerance is tolerance of homosexuals, the least-liked group in most societies. This indicator has a significant impact on SWB. It is not just that being tolerant oneself makes one happy—living in a tolerant social environment is conducive to happiness for everyone.[3]

Although we found that national pride had a strong zero-order correlation with SWB, it was closely linked with strong emphasis on religion, so when we included religiosity in the regression, national pride did not have an independent impact. Both religion and national pride were stronger in less-developed societies than in developed ones, which helps explain why some

[3]Among those who said that homosexuality is never justifiable, 25% said they were very happy; among those who said it was always justifiable, 31% were very happy.

low-income societies had relatively high levels of SWB. Thus, the contrast between the Latin American societies and the ex-communist societies shown in Figure 2 may be due in part to the fact that virtually all of the Latin American societies surveyed at that time were strongly religious and had strong national pride, whereas the ex-communist nations were not religious and did not have national pride: 76% of those surveyed in Latin American countries stated that "God is very important in my life" (placing themselves the top of a 10-point scale), whereas only 27% of those surveyed in the ex-communist countries and 42% of those surveyed in the remaining countries did so. In addition, 77% of those surveyed in Latin American countries said they are "very proud" of their nationality, as compared with 39% of those surveyed in the ex-communist societies and 57% of those surveyed in the remaining countries.

We also found that high levels of prosperity had a significant impact on subsequent levels of SWB and life satisfaction, but not on happiness. A society's level of life satisfaction seems to be more strongly influenced by economic conditions than is its level of happiness. Although they experienced democratization, the transition to democracy and a market economy in most of the ex-communist countries was accompanied by severe economic decline. In Russia, for example, real income fell to less than half its pretransition level, and life expectancy declined by several years. Consequently, in many of the ex-communist countries, happiness rose, but life satisfaction fell. High levels of democracy at the time of the first survey had a significant negative relationship with subsequent SWB. At first glance, this seems counterintuitive because the citizens of democracies tend to be happier than those of authoritarian societies: Our SWB index showed a .74 correlation with democracy as measured in 1987, just before the recent wave of democratization. The fact that a large number of unhappy societies suddenly shifted toward democracy reduced the correlation between SWB and democracy, because SWB is relatively stable. The correlation between SWB and democracy fell to about .4 by 1993 and remained at that level through 2006.

But countries scoring low on SWB were much likelier to shift toward democracy than were those that ranked high: The correlation between happiness and democratization (as measured by the amount of change in political rights and civil liberties scores) was −.59. Thus, countries that were democratic and happy at the start of the time series showed little or no change. Conversely, countries that initially ranked low on both SWB and democracy were far more likely to shift toward democracy and thus were more likely to show increases in SWB.

Freedom of Choice and Rising Happiness

Human development theory implies that the main reason why the changes of the past 25 years have led to rising happiness is because they brought greater freedom of choice. Although our measure of the feeling of free choice had a strong zero-order correlation with SWB, it does not show a significant impact in Table 1 because its variance overlaps with other the variables. Nevertheless, growing freedom of choice had a major impact on rising happiness, as Table 2 demonstrates. This table analyzes changes in SWB from the first available survey for each country to the most recent available survey. The results show that a growing feeling that one has free choice was by far the most important influence on whether SWB rose or fell. The feeling that one has free choice and control over one's life increased in many countries, with a powerful impact on changes in SWB. Indeed, when free choice was included in the regression, it was the only variable that showed a statistically significant association with change in SWB, regardless of whether the SWB index, happiness, or life satisfaction was the dependent variable. By itself, free choice explained 30% of the change over time in SWB.

This analysis explained a smaller change in happiness (21%) than that seen in life satisfaction (31%) or in the SWB index (30%). One explanation might be that although life satisfaction is measured on a 10-point scale, happiness is measured on a 4-point scale, which might produce less accuracy in measurement. Alternatively, a substantial share of the change in happiness is shaped by factors not identified here. In any case, the human development model seems to be on target in suggesting a sense of free choice as the vehicle to higher levels of SWB. Latin Americans ranked much higher here than did the citizens of ex-communist countries: 45% of the former said they had "a great deal of choice" (9 or 10 on a 10-point scale) as compared with 21% among the latter group.

Determinants of Free Choice

What leads the people of some societies to feel that they have free choice? Table 3 shows the factors linked with the rising sense of free choice that was found in most countries surveyed by the Values Surveys from 1981 to 2007. Apart from the starting level of people's sense of free choice, three variables predicted the extent to which a country's sense of free choice changed during this period. First, people living in countries that experienced relatively strong economic growth from the earliest survey to the most recent one showed a rising sense of free choice. Economic scarcity is one of the most important constraints on the extent to which people actually can make choices, and growing resources enhance freedom of choice. But democratization is of similar importance. The people of countries that experienced rising levels of democracy also experienced a rising sense of free choice. Indeed, every country that made a transition from authoritarian rule to democracy during this period showed a rising sense of free choice. Even more important than these changes is the impact of growing tolerance of diverse lifestyles on people's sense of freedom. As hypothesized, democratization, economic growth, and growing social tolerance contributed to a rising feeling that people have free choice and control of their lives.

For another perspective on the factors shaping SWB, let us move from OLS regression analysis to an HLM approach that

TABLE 1
Predicting Subjective Well-Being: Panel Regression Models

	Dependent variables			
	Subjective well-being		Happiness	Life satisfaction
Independent variables	Model 1.1	Model 1.2	Model 1.3	Model 1.4
Subjective well-being	0.577 (.107)***	0.627 (.081)***	—	—
Happiness	—	—	0.751 (.088)***	—
Life satisfaction	—	—	—	0.501 (.094)***
GDP per capita (in PPP)	0.058 (.027)*	0.055 (.026)*	0.005 (.005)	0.045 (.019)*
Level of democracy	−0.290 (.133)*	−0.114 (.041)**	−0.018 (.007)*	−0.073 (.031)*
Strength of religiosity	0.196 (.074)*	0.201 (.066)**	0.027 (.012)*	0.138 (.047)**
Level of national pride	0.031 (.524)	—	—	—
Tolerance of outgroups	0.297 (.126)*	0.288 (.119)*	0.022 (.024)	0.225 (.089)*
Sense of free choice	0.149 (.210)	—	—	—
Constant	−1.545 (1.958)	−0.679 (.578)	−0.542 (.279)	2.094 (.523)***
Adjusted R^2	.84	.84	.84	.75

Note. *N*s=41 for all models. Cell entries are unstandardized regression coefficients (standard errors in parentheses). The attitudinal variables are from 1981–2007 World Values Surveys, the economic data are from the World Bank's *World Development Indicators*, and the measure of democracy is from Polity. GDP=gross domestic product; PPP=purchasing power parity estimates. *$p < .05$. **$p < .01$. ***$p < .001$.

allows us to examine the interactions between societal-level factors and individual-level factors and to identify the microfoundations of the macrolevel findings discussed so far. Table 4 shows a series of multilevel regression models using the pooled time-series data from 1981 to 2007 on the SWB index. These analyses use the data from all surveys conducted from 1995 to 2007 (N=206,320).

Confirming the findings already reported, economic growth and per capita GDP explained 50% of the country-level differences in SWB (Model 4.1). However, as Sen (2001) argued, the crucial impact of economic development is that it increases freedom of choice. Adding our measure of free choice to the regression increased the explained variance in SWB from 6% to 15% among individuals and from 50% to 71% among countries, while also reducing the impact of the economic variables. A sense of free choice affects people's SWB more as a property of their society than as an individual characteristic: A person's SWB is as more affected by the general atmosphere of freedom in the society in which one lives than by one's individual sense of freedom.

As societies become wealthier, threats to survival become less pressing, and people become more tolerant of gender equality and social diversity and give higher priority to self-expression. An index measuring whether one would accept people of another race, immigrants, or homosexuals as neighbors shows a significant positive effect at the country-level: People living in more tolerant societies tend to be happier, regardless of their own beliefs (Model 4.3). More open social norms concerning the role of women, ethnic diversity, and alternative lifestyles give people more freedom of choice in how to pursue happiness, and tolerance of diversity increased substantially during the past quarter century. For example, the proportion of respondents claiming that homosexuality is never justifiable fell from 33% in 1981 to 16% in 2005–2007 in the countries for which data are available from both periods. Discriminatory attitudes toward women or racial minorities showed similar downward trends in most countries.

As the human development model implies, the impact of free choice on well-being increases as rising incomes increase the utility of freedom. This is evident from the cross-level interaction effects in Model 4.3. The effect of a person's household income on her SWB interacts negatively with the given country's per capita GDP, whereas the effect of a person's sense of free choice on SWB interacts positively with her country's per capita GDP. As societies become wealthier, household income shows a diminishing impact on SWB, but personal freedom shows an increasing impact. When people lack the resources to fulfill their basic needs, the utility of freedom is relatively low: Economic factors are the major determinant of most people's well-being. In more affluent societies, people give higher priority to free choice and self-expression, which, accordingly, play an increasingly important role in shaping their well-being.

A major reason why people living in economically developed societies have relatively high levels of SWB is because they have a wider range of choice in how to live their lives. Since 1989, dozens of countries have become more democratic, and virtually all high-income and middle-income countries have become more supportive of gender equality and more tolerant of outgroups. In the great majority of the countries for which time-series data were available, the proportion of the public saying that they have free choice and control over their lives increased since 1981. According to our interpretation, this implies that we should find rising happiness levels. The strong version of the hedonic treadmill model would dismiss these facts as irrelevant:

TABLE 2
Predicting Increases in Subjective Well-Being

	Dependent variables					
	SWB index		Happiness		Life satisfaction	
Independent variables	Model 2.1 (N=42)	Model 2.2 (N=59)	Model 2.3 (N=42)	Model 2.4 (N=59)	Model 2.5 (N=42)	Model 2.6 (N=60)
Starting level of dependent variable	−.161 (.099)	−.114 (.048)*	−.292 (.094)***	−.156 (.053)***	−.117 (.129)	−.135 (.059)*
Change in per capita GDP (in PPP; base=100) from first to last survey	.175 (.316)	—	−.004 (.064)	—	.201 (.223)	—
Change in level of democracy from first to last survey	.068 (.033)*	—	.010 (.007)	—	.040 (.023)	—
Change in religiosity from first to last survey	.102 (.206)	—	.007 (.042)	—	.050 (.139)	—
Change in national pride from first to last survey	.135 (.431)	—	.031 (.087)	—	.047 (.307)	—
Change in tolerance from first to last survey	.154 (.074)*	—	.035 (.013)*	—	.069 (.057)	—
Change in sense of free choice from first to last survey	.434 (.204)*	.651 (.154)***	.041 (.041)	.073 (.030)*	.330 (.145)*	.477 (.110)***
Constant	−.552 (.459)	.122 (.099)	.068 (.223)	.092 (.020)***	.068 (.800)	−.816 (.414)
Adjusted R^2	.29	.30	.28	.21	.20	.31

Note. Cell entry is unstandardized regression coefficient (standard error in parentheses). The attitudinal variables are from 1981–2007 World Values Surveys, the economic data are from the World Bank's *World Development Indicators*, and the measure of democracy is from Polity. SWB=subjective well-being; GDP=gross domestic product; PPP=purchasing power parity estimates.
*$p < .10$. ***$p < .01$. A value of .10 can be considered an acceptable significance threshold when including the lagged dependent variable.

Any difference between the SWB levels of rich and poor countries must be due to some fixed cultural difference in the meaning of happiness. The low-ranking countries have always been low and will remain so.

But they have not. Data from the Values Surveys show that during the past two decades, the SWB index rose in 77% of the countries for which a substantial time series is available. Figure 3 shows the changes observed on the SWB index in all 52 of these countries (with an average of 17 years between the earliest and latest surveys). Contrary to the belief that happiness remains constant, SWB rose in 40 countries and fell in only 12, with a median increase of .35 on this index. Putting it in an intuitively more meaningful form, the average percentage of people in these countries saying they were "very happy" increased by almost 7 points. The probability that these increases are due to chance is negligible. A paired t test between the earliest and most recent data for countries with at least a 10-year range of data yields a 0.0001 probability of this rise being observed under the null hypothesis of constant global happiness, $t(42)=3.99$.

Many of the countries showing the largest increases in SWB are former communist countries. As we will see below, the collapse of communism was generally followed by a sharp decline in SWB, which tended to rise again after economic recovery. In the case of Ukraine and Moldova (the two countries showing the largest increases in SWB), the first available survey was carried out in 1996—overall, a low point following the collapse of communism. The most recent survey from both countries was from 2006, so the strong upward movement may reflect recent recovery, such as the one that occurred in Russia. In Hungary (the country showing the largest decline), the earliest available survey was from 1982—well before the collapse of communism, when SWB was still relatively high—and the latest available survey was from 1999. We suspect that a more recent survey would show a relative recovery in the Hungarian level of SWB, as was true in Russia.

We have substantial time-series data for 15 ex-communist countries. In six of them (including Hungary), our most recent survey was from 1999, and five of those six show decreasing life satisfaction. In the other nine cases, our most recent survey was from 2005–2007, and seven of the nine showed increasing happiness. It seems that happiness rose more widely than life satisfaction because life satisfaction is more sensitive to economic conditions than happiness. In most ex-communist countries, the political and social liberation of recent years was accompanied by economic collapse that lasted for about a decade. Only in recent years have their economies recovered. Most of the ex-communist countries for which we do not have recent data show rising happiness but declining life satisfaction (as in Hungary). Most of the ex-communist countries for which we do have recent data, show both rising happiness and rising life satisfaction (as in Russia).

Happiness and life satisfaction can move in different directions for significant periods of time, but they tend to rise and fall

TABLE 3
Predicting Changes in Sense of Free Choice

	Change in population's mean sense of free choice			
Independent variables	Model 3.1 (N=42)	Model 3.2 (N=56)	Model 3.3 (N=56)	Model 3.4 (N=62)
Start level of dependent variable	−0.292 (.105)***	−0.289 (.080)***	−0.282 (.080)***	−0.316 (.077)***
Change in GDP per capita	0.078 (.250)	0.191 (.098)*	0.177 (.097)*	—
Change in level of democracy	0.040 (.024)	0.031 (.020)	0.034 (.019)*	—
Change in religiosity	0.059 (.129)	—	—	—
Change in national pride	−0.506 (.330)	−0.270 (.261)	—	—
Change in tolerance	0.169 (.069)**	0.107 (.053)**	0.109 (.053)**	0.105 (.052)**
Constant	1.878 (.794)*	1.815 (.561)***	1.786 (.561)***	2.317 (.501)***
Adjusted R^2	.20	.28	.28	.21

Note. Cell entries are unstandardized regression coefficients (standard errors in parentheses). The attitudinal variables are from 1981–2007 World Values Surveys, the economic data are from the World Bank's *World Development Indicators*, and the measure of democracy is from Polity. GDP=gross domestic product.
*$p < .10$. **$p < .05$. ***$p < .01$.

together (the societal-level correlation is .81). We suspect that if we had recent data for all of the ex-communist countries, the trend toward rising life satisfaction would be even more widespread. If all six of the ex-communist countries not surveyed since 1999 showed rising life satisfaction, it would raise the percentage of countries with rising life satisfaction to 75%, which is still short of the 88% showing rising happiness. The differential impact of the collapse of communism on happiness and life satisfaction is only part of the explanation for why the former rose more than the latter, but it seems to play an important role.

We hypothesized that economic development, democratization, and increasingly tolerant societies have contributed to a growing sense of freedom and control. In keeping with this interpretation, the public's sense of freedom increased in 79% of the countries for which a substantial time series is available from the Values Surveys. This is an overwhelming trend—fully as strong as the global trend toward rising SWB, with which it is closely linked. As the regression analysis in Table 2 demonstrated, a rising sense of free choice is by far the most powerful factor driving rising SWB. By itself, it explains 30% of the changes observed on the SWB index. The fact that the people of

TABLE 4
Multilevel Predictions of Subjective Well-Being

	Subjective well-being index		
Independent variables	Model 4.1	Model 4.2	Model 4.3
Constant	.66 (111.28)***	.66 (145.69)***	.66 (155.96)***
Individual-level effects (fixed effects)			
Income decile	.19 (19.60)***	.14 (19.35)***	.16 (22.29)***
Sense of free choice		.25 (33.90)***	.24 (35.54)***
Tolerance of outgroups			.02 (5.32)***
Country-level effects (random intercepts)			
GDP/capita at PPP at time of survey	.05 (12.13)***	.04 (9.47)***	.04 (6.93)***
GDP growth during 5 years preceding survey	.08 (4.23)***	.04 (3.36)***	.03 (3.65)**
Sense of free choice (country mean)		.38 (6.54)***	.30 (4.74)***
Tolerance of outgroups (country mean)			.05 (2.16)*
Cross-level interaction effects (random slopes)			
Income level × GDP per capita			−.05 (−7.04)***
Sense of free choice × GDP per capita			.02 (3.13)**
Explained individual-level variance	0.6%	15%	17%
Explained country-level variance (intercepts)	50%	71%	74%
Explained country-level variance (income slope)	—	—	24%
Explained country-level variance (freedom slope)	—	—	12%

Note. Entries are unstandardized regression coefficients, with robust standard errors in parentheses. 206,320 individuals in 185 country-wave units participated. Researchers used HLM 6.01 for analyses. The attitudinal variables are from 1981–2007 World Values Surveys and the gross domestic product (GDP) data are from the World Bank's *World Development Indicators*.
*$p < .05$. **$p < .01$. ***$p < .001$.

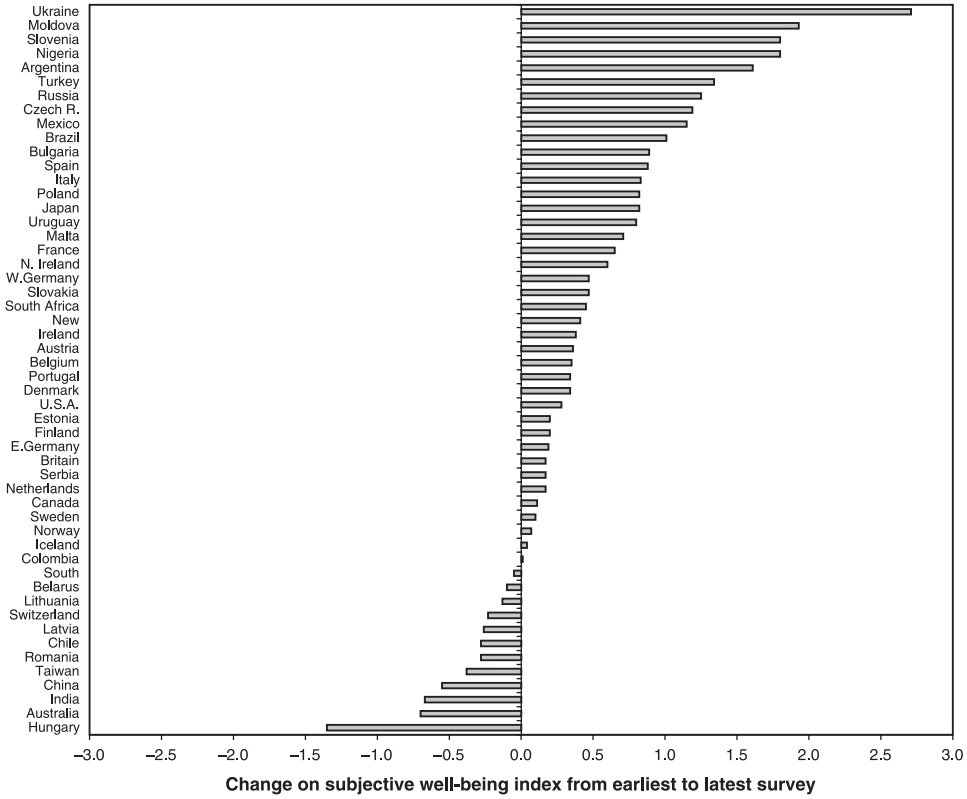

Fig. 3. Change in subjective well-being (SWB) index from earliest to latest survey for all countries with a substantial time series (17 years, on average). This index is based on equally weighted responses to questions measuring life satisfaction and happiness. Life satisfaction is measured on a 10-point scale, and happiness is rated on a 4-point scale; the two questions have opposite polarity, so the index is constructed as follows: SWB=(life satisfaction − 2.5×happiness).

most countries experienced a growing sense of free choice from 1981 to 2007 seems to be the core reason why SWB has risen. Figure 4 shows how both the sense of freedom and SWB levels increased in most of these countries from the earliest available survey to the latest one and shows that the two have a strong tendency to rise and fall together ($r = .71$).

Why Have These Trends Escaped Notice?

How did such an important phenomenon as this dramatic rise in SWB escape notice until now? We suggest four reasons. First, most of the earlier evidence came from rich countries that had already passed the point of diminishing returns from economic development and thus showed relatively little change. Second, research has largely focused on material factors, despite growing evidence that belief systems and institutions are also important drivers of SWB and that happiness is shaped by social and psychological factors at least as much as it is by economic and genetic ones. Third, the decisive social changes—global economic growth, widespread democratization, growing tolerance of diversity, and a rising sense of freedom—are relatively recent and did not show their impact in earlier surveys. And finally, cross-national research on the determinants of happiness has tended to focus on life satisfaction, rather than happiness per se.

This is an important point because the rise in SWB shown in Figure 3 is largely driven by rising happiness levels. Although life satisfaction rose in 63% of these societies, happiness increased in 87% of them. Happiness and life satisfaction are closely correlated, as we have noted, and the two terms are often used interchangeably. Moreover, increases in life satisfaction tended to accompany increases in happiness ($r = .33$). But although closely linked, they reflect different facets of SWB. Life satisfaction is more strongly tied to a society's economic level, as we saw in Table 1. If one assumes that economic variables are the main determinant of SWB, as many previous researchers have, then the fact that life satisfaction is more closely correlated with economic conditions implies that it is the better measure of SWB. But, as we have seen, economic variables are only part of the story—and not the most important part.

If one instead views happiness and life satisfaction as tapping complementary aspects of SWB, then one can understand why recent years brought a stronger trend toward rising happiness than toward rising life satisfaction. For although the expansion of freedom was widespread, it was not always accompanied by rising prosperity. In many cases—particularly in ex-communist countries—democratization was accompanied by economic collapse, leading life satisfaction to fall while happiness increased. Thus, as Figure 5 shows, during the period covered by

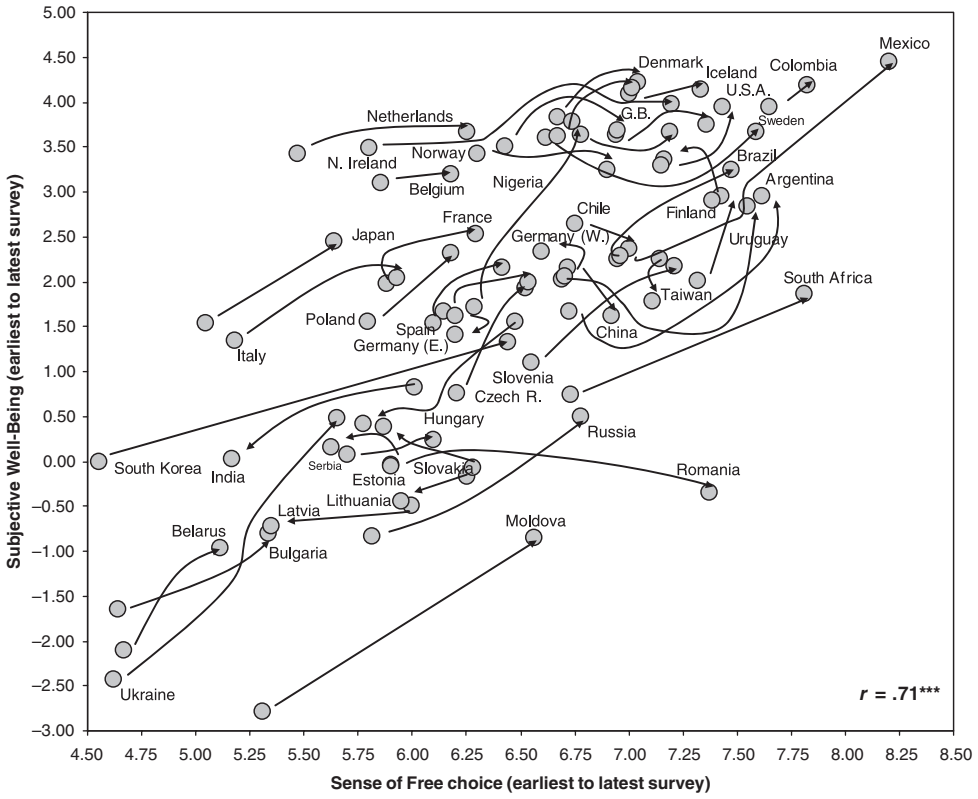

Fig. 4. Changes in subjective well-being and sense of free choice.

this analysis, life satisfaction rose in 33 countries and fell in only 19. The rising life satisfaction found in 63% of the countries in our sample constitutes a clear trend toward rising SWB, but it is overshadowed by the trend toward rising happiness shown in Figure 6.

Happiness rose in 45 countries and fell in 6; one country (Australia) showed no change. Thus, happiness rose in 87% of the countries for which substantial time-series data was available (17 years, on average, ranging from 1981 to 2007). Many of the increases were sizeable, and no country declined by more than 8 points. In the median country, from the earliest survey to the latest one, the percent saying they were very happy rose by 5.9%, and the average increase was 6.8%. Seasonal variation can not account for this increase.[4] The trend toward rising happiness is overwhelming. Particularly large increases occurred in Mexico and Nigeria and in South Africa, where transitions to democracy took place during the period between the earliest and latest surveys. But the shift toward rising happiness spans the spectrum from low-income to high-income countries and cuts across cultural zones. Recent decades have seen unprecedented economic development in large parts of the world and a widespread expansion of political freedom. Moreover, the people of rich democracies have also experienced major changes in social norms, with rising gender equality and growing tolerance of outgroups increasing freedom of choice for over half of the population and creating a more tolerant social environment for everyone.

The United States is among the countries showing an upward trend in happiness in Figure 6. How can this be reconciled with the widely cited finding that happiness levels in the U.S. have been flat from 1946 to the present? Surprising as it may seem, the two findings are not incompatible when one examines the data closely. An internet appendix to this article shows the trends in happiness levels in 24 countries for which the World Database of Happiness provides long-term time-series data going as far back as 1946; these graphs can be found at http://www.worldvaluessurvey.org/happinesstrends.[5] This database includes the first four waves of the Values Surveys, which we

[4]The Eurobarometer surveys provide a time series in which the same happiness question was asked almost every spring and fall in a large number of countries for many years. Among the 10 countries in which this question was asked throughout the 1970s and 1980s, the average proportion saying they were *very happy* was 26.2% in the spring surveys and 24.8% in the fall surveys. Thus, the spring surveys were 1.4% higher than the fall surveys. If the first available survey for all 52 countries analyzed here had been carried out in the fall and the last available survey for all 52 countries had been carried out in the fall, it could account for an increase of 1.4 points in the percentage of people who reported being *very happy*. In fact, there was no evidence that the early surveys were more often carried out in the fall than were the later surveys. Seasonal variation can not account for the mean increase of 6.8% of people saying they were *very happy*.

[5]Information about the World Database of Happiness data and the data themselves are available at http://worlddatabaseofhappiness.eur.nl/.

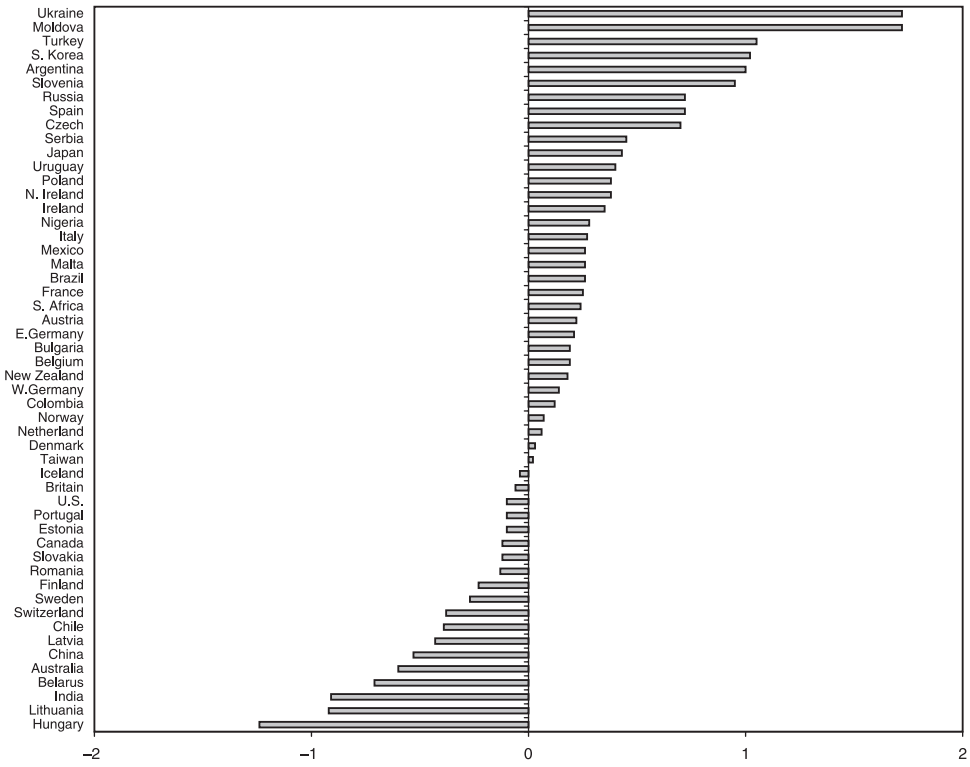

Fig. 5. Change on mean life satisfaction scores from earliest to latest survey for all countries with a substantial time series.

have updated with the data from the 2005–2007 World Values Survey.

The first two graphs in this internet appendix show the happiness trends in the U.S. from 1946 to 2006. These data can be read as showing two offsetting trends. Happiness starts at a high level in 1946 and shows a modest downward trend until 1979; it then shows a modest upward trend from 1980 to 2006—as do the U.S. data in Figure 6.

When this series began in 1946, the U.S. was the world's richest country. It was also the world's strongest country militarily and politically, and the U.S. was probably experiencing a sense of euphoria from victory in World War II. This may have been an historic high point. If surveys had been taken during the Great Depression of the 1930s, we suspect that they would have shown lower levels. It also seems possible that the decline during the 1970s may have reflected the social upheavals of the Vietnam era and the weakening of the U.S.'s image of strength before the Reagan era. This is mere speculation, and the changes that took place were modest. But even if one dismisses them altogether and concludes that happiness in the U.S. was flat from 1946 to 2006, the U.S. is clearly not a typical country in this respect.

Among the countries for which we have long-term data from the World Database of Happiness, supplemented by more recent data from the Values Surveys, 19 of the 26 countries show rising happiness levels. Several countries— India, Ireland, Mexico, Puerto Rico, and South Korea—show steeply rising trends. Other countries with rising trends are Argentina, Canada, China, Denmark, Finland, France, Italy, Japan, Luxembourg, the Netherlands, Poland, South Africa, Spain, and Sweden. Three countries (the U.S., Switzerland, and Norway) show flat trends from the earliest to latest available survey—all at very high levels. Only four countries (Austria, Belgium, the U.K., and West Germany) show downward trends. It is interesting that, in keeping with the hypothesis that the relationship between economic development and happiness follows a curve of diminishing returns, all but one of the countries that show steeply rising trends were low-income or middle-income countries at the start of the time series and all of the countries showing flat or declining trends are high-income countries.

As mentioned earlier, Easterlin (2005) pointed out incomparabilities and discontinuities in the various data sources used in the World Database of Happiness. But these results point in the same direction as the findings from the Values Surveys, which used the same measurement techniques in all surveys. In the data shown in the internet appendix, almost five times as many countries show rising trends as downward trends. Thus, even if we choose to read the U.S. data as flat rather than curvilinear, it cannot be taken as a general model. Happiness actually rose in most countries for which long-term data were available.

The Spring 2007 Eurobarometer surveys for all 27 European Union countries asked a question in about happiness that was identical to the one used in the Values Surveys—enabling us to

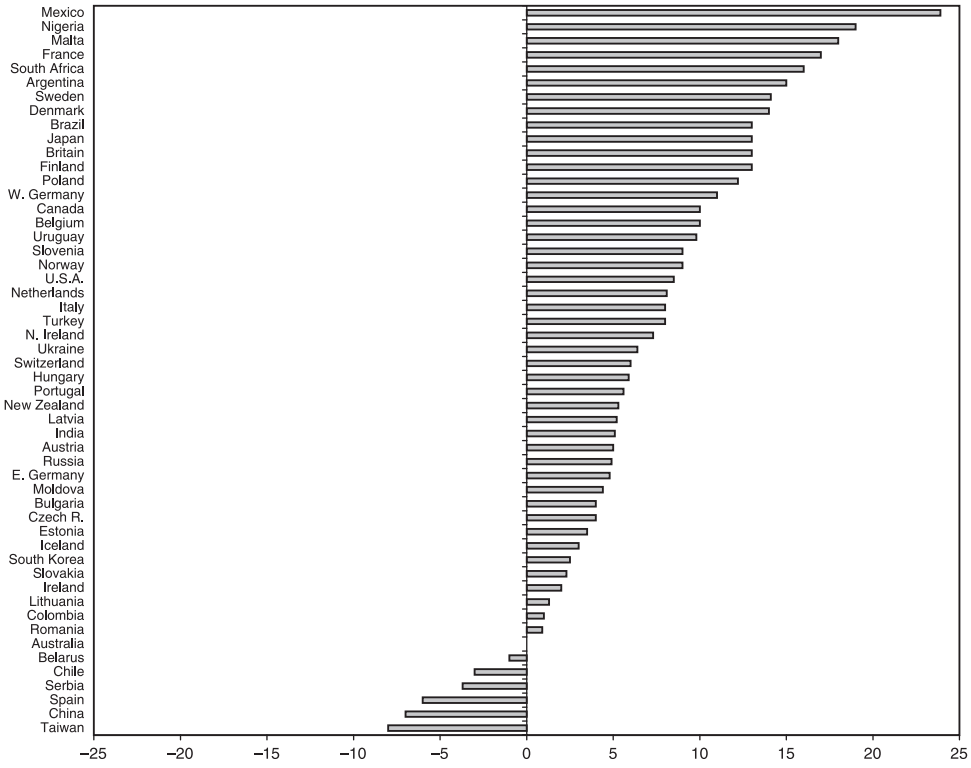

Fig. 6. Change in percentage of those saying they are very happy from earliest to latest survey for all countries with a substantial time series.

update our findings for a dozen countries where the time series ended in 1999. We have substantial time-series data for 24 of these countries. Updating these data with the 2007 Eurobarometer data, we find rising happiness in 23 of the 24 countries, as Appendix B demonstrates. The trend toward rising happiness is robust.

But happiness rose more consistently than did life satisfaction, for they tap different aspects of SWB. During the period analyzed here, many ex-communist countries experienced democratization accompanied by economic collapse, resulting in rising happiness and falling life satisfaction. Russia is a striking example. In the years since 1981, Russia experienced both political liberalization and economic trauma—and while happiness levels rose, life satisfaction fell sharply. It was not possible to carry out the World Values Survey throughout Russia in 1981, but our Soviet colleagues were able to do so in Tambov oblast, a Russian district that they claimed was representative of Russia as a whole. To verify this claim, we surveyed Tambov oblast again in 1995, together with the Russian republic as a whole. The 1995 results from Tambov and Russia were very similar, with Russia ranking 61st and Tambov ranking 62nd on SWB among 65 societies covered. Our colleagues' belief that Tambov tracks Russia as a whole seems justified.

Figure 7 shows the trajectory of SWB in Russia from 1982 to 1995, using Tambov oblast as a stand-in for Russia in 1982. At the start of this period, the SWB of the Russian people was about where it currently is in China and Vietnam—two societies where communism did not collapse. We suspect that in the 1960s and 1970s, Russia's level of well-being was even higher, but by 1982 Russia already was experiencing rising alcoholism, absenteeism, and other symptoms of demoralization, and its SWB level was comparable with that of low-income countries such as India and Bangladesh. After 1982, Russian SWB fell sharply, and by 1991 over half of the population said they were dissatisfied with their lives as a whole—a previously unprecedented finding. In December 1991 (after our survey was completed), the communist system collapsed, and the Soviet Union broke up into fifteen successor states. Life satisfaction continued to fall, and in 1995 an overwhelming majority of the Russians said they were dissatisfied with their lives. Since 2000, Russia has enjoyed an economic boom. Life satisfaction levels have responded, rising to 6.09 in 2006—still well below the level where Tambov (and presumably Russia) were in 1982, but nearly on the same level as India and well above the level found in the 1991 Russian survey. The decline of life satisfaction in Russia was far from transient, extending across two decades.

Hungary is the only other communist society where it was possible to carry out the Values Surveys before the collapse of communism. Hungary's transition from communism to market democracy was not nearly as severe as Russia's. Economic decline and the breakdown of civil order were milder, and Hungary retained its national identity whereas the Soviet Union split into 15 successor states. By 2003, Hungary was sufficiently prosperous and democratic to be admitted to the European Union.

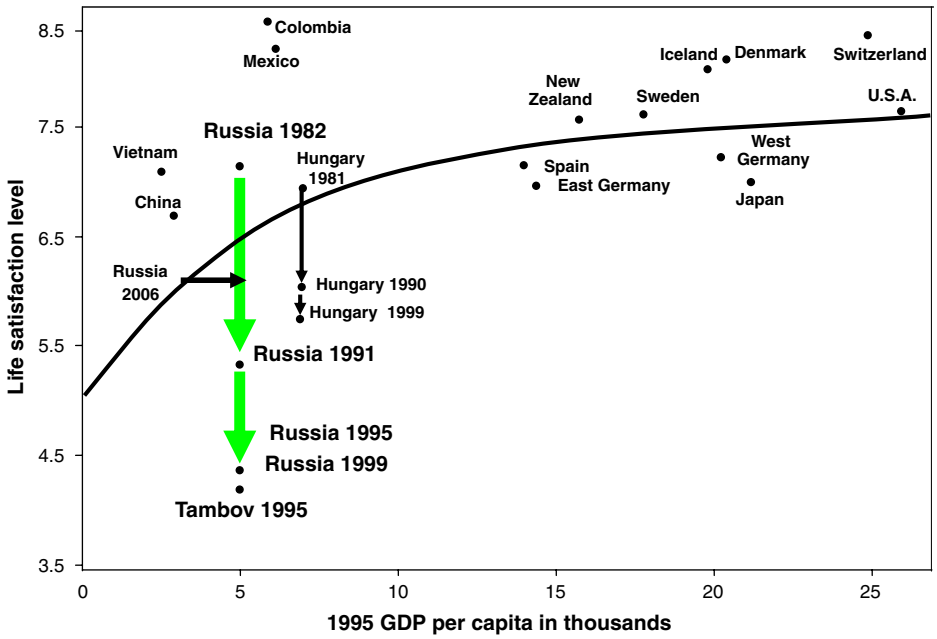

Fig. 7. The collapse of communism and falling life satisfaction in Russia and Hungary since 1982 as compared with other European and Asian countries. Gross domestic product (GDP) is shown as purchasing power parity estimates.

Nevertheless, the collapse of communism was also linked with a sharp decline of life satisfaction in Hungary. In the 1982 survey, the Hungarians showed a mean life satisfaction score of 6.93—close to Tambov's level at that time and well above that of China. But with the collapse of communism, the Hungarian life satisfaction level declined to 6.03 in 1991 and continued to fall, dropping to 5.69 in 1999 (no more recent survey is available for Hungary). The Russian and Hungarian people experienced democratization, but their economic systems declined. In both cases, happiness rose, but life satisfaction fell.

Before 1990, the Values Surveys were not permitted in the other ex-communist societies, so we lack the before-and-after data that would be needed to demonstrate that the collapse of communism was linked with declining life satisfaction. But let us note that Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Estonia, Georgia, Latvia, Lithuania, Macedonia, Moldova, Romania, Serbia, Slovakia, and Ukraine all have shown much lower levels of SWB than their economic levels would predict. It seems unlikely that this is due to some fixed cultural predisposition for people in this culturally and linguistically diverse set of countries to say they are dissatisfied. We suspect that these low levels reflect the traumatic experiences linked with the collapse of communism.[6]

[6]The extent to which these experiences were traumatic varied considerably. Poland, Hungary, Slovenia, the Czech Republic, and East Germany made relatively smooth transitions and now show life satisfaction levels only marginally lower then those found in other members of the European Union. But most ex-communist countries had more wrenching experiences and continue to show much lower levels of life satisfaction than do countries with similar economic levels.

Similarly, we have no time-series data from Iraq and Zimbabwe, so we cannot prove that their people have not always had the extremely low levels of SWB shown on Figure 2, but it seems implausible. Both societies are currently in the throes of economic, social, and political collapse. Perhaps the Iraqis and Zimbabweans are among the world's unhappiest people because they have unique cultural understandings of what happiness means. But it seems likelier that they are unhappy because life in their countries has become nasty, brutish, and short.

Under extreme conditions, a society's levels of happiness and life satisfaction can show enduring changes. The collapse of the Soviet economic, social, political, and beliefs systems brought changes that the strong version of the hedonic treadmill model cannot explain. Socio-economic changes can lastingly reshape the SWB levels of entire societies. Sharp declines in SWB do not occur often, but when they do they can have serious consequences. Though the collapse of the Soviet Union in 1991 had its own negative effects, it was preceded by declining SWB. Similarly, the breakup of the Belgian state in the 1980s and its reorganization into a federation based on ethnic cleavages was preceded by a sharp decline in SWB (Inglehart & Klingemann, 2000).

DISCUSSION

Analysis of the five waves of surveys from 1981 to 2007 including 88 countries containing almost 90% of the world's population indicates that happiness can show significant and enduring changes—not only for given individuals, as recent research demonstrated, but across entire societies. Since 1981,

happiness has risen in 45 of the 52 societies for which substantial time-series data are available.

These findings are based on people's reports of how happy and how satisfied with life they are. Kahneman et al. (2004) have developed an alterative method to measure SWB, having respondents record how many minutes per day they spend on various activities, some of which are pleasant whereas others are not. Their work is too important to ignore. Kahneman et al. found that the proportion of time people spend in pleasant or hedonic activities has a surprisingly weak relationship to their self-reported SWB. For example, although many people say that their children are among their most important sources of happiness, time-use logs reveal that those who have children spend far more time with nonhedonic activities like changing diapers than they do with pleasant ones. One interpretation is that people don't really know whether or not they are happy: Their reports of their own happiness and life satisfaction are distorted by selective recall and social desirability effects and thus fail to measure real happiness.

Another interpretation is that Kahneman et al. (2004) found a weak correlation because they are only measuring one component of happiness. Peterson, Park, and Seligman (2005) suggested that three components contribute to life satisfaction: pleasure, engagement, and meaning. Kahneman et al. have developed an impressive and accurate way to measure how much time people spend on pleasurable activities, and there is no doubt that they have measured an important aspect of life. But happiness is a broader concept. What Kahneman et al. have measured is sometimes described as "happiness," just as findings based on life satisfaction are often described as measuring happiness, though it is clear that happiness and life satisfaction tap somewhat different aspects of SWB. Similarly, it is potentially confusing to describe what Kahneman et al. measured as "happiness," because it is not what people generally understand by that term.

This is not an idle claim. During the past 26 years, the Values Surveys have asked more than 350,000 people how happy they are. Across scores of countries, 97% of the people have answered the question. This is an exceptionally high response rate, which suggests that people understand the question and can readily answer it. Moreover, their answers are strongly correlated with their responses to questions about overall life satisfaction, satisfaction with jobs, income, family life, friendships, and many other aspects of life. Furthermore, societies in which people report high levels of happiness and life satisfaction have less corrupt governments and higher levels of gender equality and are likelier to be democracies than other societies—and the correlations are remarkably strong, often in the .7 or .8 range (Inglehart & Welzel, 2005). Mistaken or error-ridden answers would not be so strongly correlated with people's worldviews and social structure. The responses to these questions tap meaningful and important aspects of people's lives, not just muddled thinking.

We suggest that Kahneman et al. (2004) found only a weak linkage between how much time people spend in pleasant activities and their own reported happiness because what they measured does not correspond to what people usually have in mind when they speak of happiness. It does not consist simply of maximizing the number of one's pleasant minutes. Happiness reflects not only people's objective experiences, but also how they evaluate these experiences in light of their values and religious and ideological beliefs, which probably also help shape selective recall. These beliefs are not a source of measurement error—they are a central part of reality. They play a crucial role in how people actually experience happiness. We suggest that all minutes are not equally important: They are weighted by one's values and worldview. In this value-laden process, one minute when your child comes running to greet you with a smile and a hug may be worth a hundred minutes of cleaning up after them. And one minute when a runner achieves her personal best may be worth a hundred minutes of stressful training. People do know whether or not they are happy. Happiness is an immediately accessible feeling, not something that requires elaborate cognitive processing. Consequently, when people are asked whether they are happy, they can and do give meaningful responses.

Fully as important as the fact that happiness has risen is the reason why it has done so. The evidence indicates that certain types of societies are more conducive to happiness than others—in particular, societies that allow people relatively free choice in how to live their lives. The events of the past 25 years have brought a growing sense of freedom that seems to have been even more important than economic development in contributing to rising happiness. Moreover, the most effective way to maximize happiness seems to change with rising levels of economic development. In subsistence-level societies, happiness is closely linked with ingroup solidarity, and religiosity and national pride are important determinants of happiness. At higher levels of economic security, the impact of free choice surpasses that of solidarity.

The findings presented here are consistent with the interpretation that economic factors have a strong impact on SWB in low-income countries, but that, at higher levels of development, evolutionary cultural changes occur in which people place increasing emphasis on self-expression and free choice, leading them to increasingly emphasize strategies that maximize free choice and happiness (Inglehart, 1997; Inglehart & Welzel, 2005). In recent years, economic growth, democratization, and these changing cultural strategies actually seem to have raised happiness levels in much of the world. The evidence indicates that these factors were conducive to happiness mainly through their common tendency to increase human freedom, as human development theory argues. Figure 8 shows a path analysis of this causal sequence. As it indicates, democratization and rising social tolerance contributed even more than economic development to a growing sense of free choice and thus to rising levels

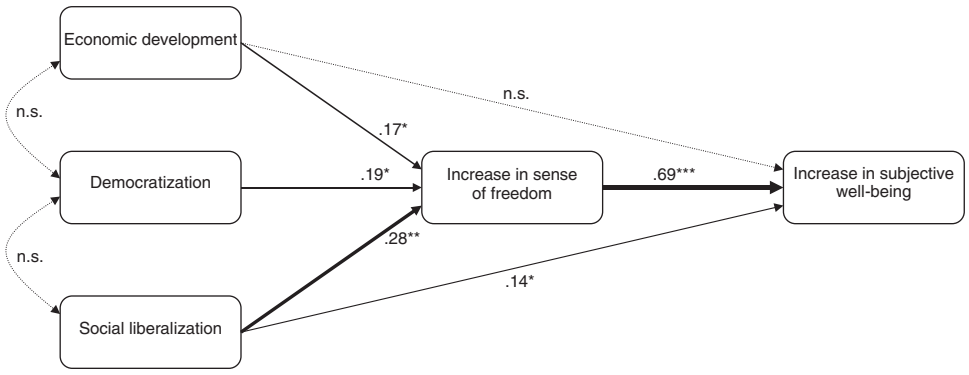

Fig. 8. Socioeconomic change, growing freedom, and rising happiness: The human development path. Path coefficients are standardized regression weights calculated with AMOS. $N=56$ and the model fit statistics are NFI=.92, IFI=.94, and CFI=.93. Explained variance in increase of sense of freedom growth is 44%, and explained variance in increase of subjective well-being is 62%. Paths on sense of freedom growth are calculated controlling for the initial level of sense of freedom, and paths on subjective well-being growth are calculated controlling for the initial subjective well-being level. The effects of the initial sense of freedom and subjective well-being levels are not displayed, so as to produce a readable chart. A direct path from democratization to subjective well-being growth was also specified and proved to be insignificant; this path is also not displayed. NFI=normed fit index; IFI=incremental fit index; CFI=comparative fit index. $^{*}p < .10$, $^{**}p < .05$ $^{***}p < .01$

of happiness. Here, our findings support Easterlin's (2005) contention that research on happiness should not just focus on economic growth, but also on noneconomic aspects of well-being. Economic growth makes a positive contribution to SWB, but it is the weakest of the three main factors.

The strong version of the hedonic treadmill model was supported by three arguments: (a) individuals have a long-term happiness set point to which they readapt, despite changing circumstances; (b) this set point is largely genetically determined; and (c) societies' happiness levels remain fixed over time. Recent research argues that the first two points should be reinterpreted as strong tendencies and not iron laws. The findings presented here support this reassessment and demonstrate that the third point also needs to be modified: The happiness levels of nations can and do change.

Taken together, these findings suggest that the hedonic treadmill model should be revised but not abandoned. The twin studies provide convincing evidence that genetic factors have an important impact on SWB. And there is abundant and equally convincing evidence that people adapt to changes, such that SWB levels tend to fluctuate around stable set points. But these factors are not as dominant as earlier interpretations suggested. The hedonic treadmill model is a tendency that prevails only when other factors are constant. It may be adequate to explain most of the variation in happiness that occurs during normal times, such as the prolonged period of prosperity and stable democracy that the U.S. experienced since World War II. However, it cannot account for the sharp decline of life satisfaction that accompanied the collapse of communism or the pervasive rise of happiness observed more recently.

Historical, cultural, and institutional factors can have a major impact on SWB. These factors have received relatively little attention because a nation's culture and national institutions are constants for a given country at a given time, so they can not explain any of the variance found in a one-country study. But these factors vary greatly between different societies and over time. Virtually all of the research on genetic influences on SWB was carried out within stable single countries, where SWB varies within a relatively narrow range. Within this range, genetic factors may explain a good share of the variance. But one finds a much broader range of variation in global perspective, and genetic factors explain a much smaller proportion of the variance at that level. A society's economic and political institutions and its belief system help shape the SWB of its people, and major social changes can cause their SWB to rise or fall enduringly.

Overall SWB increased in 77% of the 52 countries for which a substantial time series was available since 1981. But although life satisfaction rose in 63% of these countries, happiness rose in 87% of them. Happiness responded to the changes of recent decades more positively than did life satisfaction. One reason is because life satisfaction is more sensitive to economic conditions than happiness is, and in many ex-communist countries the political and social liberation of recent years was accompanied by economic collapse, bringing rising happiness but declining life satisfaction. Until economic prosperity was restored, the people of these countries experienced rising happiness but a sharp drop in life satisfaction. The topic merits further research, but it seems that happiness is more absolute and affect-laden, whereas life satisfaction is more influenced by comparisons with others and with one's previous conditions.

We would not expect SWB to continue rising forever. Even apart from ceiling effects, recent years have seen an unusual conjunction of favorable factors. Many low-income and middle-income countries experienced exceptionally high rates of

economic growth, in the range of 4% to 11% annually. Rich countries had relatively little economic growth (in the range of 1% to 3%), but they experienced remarkable rates of social liberation, with hardcore opposition to gender equality and homosexuality falling by roughly half since 1981 (Inglehart & Welzel, 2005). In the same period, dozens of countries experienced democratization. Democratization tends to be a one-shot occurrence, and it is uncertain that such strong rates of economic growth and social liberation will continue. The hedonic treadmill model might explain most of the variation in happiness when major economic, cultural, and political changes are not occurring. But during the past quarter century, the world as a whole has experienced exceptional economic growth, widespread democratization, and increasing tolerance of social diversity. These changes expanded freedom of choice, which was conducive to rising levels of SWB.

These findings suggest that SWB has important social consequences: Falling levels of SWB were a leading indicator of the collapse of former communist systems. These findings also have important implications for social scientists and policymakers, for they imply that human happiness is not fixed but can be influenced by belief systems and social policies.

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APPENDIX A

Subjective Well-Being in 52 Countries: 1981–2007

Country and year	SWB index	Happiness	Life satisfaction
Argentina (1984)	1.69	2.05	6.79
Argentina (1991)	2.43	1.93	7.25
Argentina (1995)	2.16	1.91	6.92
Argentina (1999)	2.65	1.87	7.33
Argentina (2006)	3.30	1.80	7.79
Australia (1981)	3.65	1.70	7.88
Australia (1995)	3.47	1.63	7.55
Australia (2005)	2.95	1.73	7.28
Austria (1990)	3.32	1.81	7.80
Austria (1999)	3.68	1.75	8.02
Belarus (1990)	−0.82	2.54	5.52
Belarus (1996)	−2.11	2.58	4.35
Belarus (2000)	−0.92	2.31	4.81
Belgium (1981)	3.05	1.75	7.37

APPENDIX A *Continued*

Country and year	SWB index	Happiness	Life satisfaction
Belgium (1990)	3.44	1.69	7.65
Belgium (1999)	3.40	1.67	7.56
Brazil (1991)	2.24	2.06	7.39
Brazil (1997)	2.23	1.97	7.15
Brazil (2006)	3.25	1.76	7.65
Bulgaria (1990)	−1.66	2.67	5.03
Bulgaria (1997)	−1.37	2.42	4.66
Bulgaria (1999)	−1.10	2.59	5.34
Bulgaria (2006)	−0.77	2.40	5.22
Canada (1982)	3.63	1.69	7.84
Canada (1990)	3.01	1.96	7.88
Canada (2000)	3.78	1.61	7.80
Canada (2006)	3.74	1.59	7.72
Chile (1990)	2.65	1.97	7.55
Chile (1996)	2.07	1.94	6.91
Chile (2000)	2.53	1.84	7.12
Chile (2005)	2.37	1.92	7.16
China (1990)	2.16	2.05	7.29
China (1995)	1.97	1.95	6.83
China (2001)	1.20	2.13	6.53
China (2007)	1.61	2.06	6.76
Colombia (1997)			8.19
Colombia (1998)	4.18	1.70	8.42
Colombia (2005)	4.19	1.65	8.31
Czech Republic (1990)	0.76	2.24	6.36
Czech Republic (1991)	1.45	2.16	6.83
Czech Republic(1998)	1.18	2.10	6.39
Czech Republic (1999)	1.95	2.04	7.06
Denmark (1981)	3.90	1.74	8.21
Denmark (1990)	4.07	1.64	8.16
Denmark (1999)	4.24	1.61	8.24
Estonia (1990)	−0.02	2.42	6.00
Estonia (1996)	−0.87	2.36	5.00
Estonia (1999)	0.18	2.30	5.90
Finland (1981)	3.15	1.90	7.91
Finland (1990)	2.95	1.91	7.68
Finland (1996)	3.17	1.85	7.78
Finland (2000)	3.20	1.87	7.87
Finland (2005)	3.35	1.79	7.84
France (1981)	1.89	1.91	6.66
France (1990)	2.21	1.84	6.78
France (1999)	2.48	1.78	6.93
France (2006)	2.54	1.75	6.91
East Germany (1990)	1.62	2.05	6.67
East Germany (1997)	1.41	2.10	6.64
East Germany (1999)	2.11	2.04	7.19
East Germany (2006)	1.81	2.04	6.88
West Germany (1981)	2.21	2.04	7.25
West Germany (1990)	2.40	1.96	7.22
West Germany (1997)	2.30	1.97	7.22
West Germany (1999)	2.82	1.95	7.70
West Germany (2006)	2.68	1.91	7.39
Great Britain (1981)	3.51	1.67	7.66
Great Britain (1990)	3.17	1.72	7.47
Great Britain (1998)	3.12	1.79	7.59
Great Britain (1999)			7.40

APPENDIX A *Continued*

Country and year	SWB index	Happiness	Life satisfaction
Great Britain (2006)	3.68	1.57	7.60
Hungary (1982)	1.58	2.15	6.93
Hungary (1991)	0.34	2.28	6.03
Hungary (1998)	0.57	2.12	5.86
Hungary (1999)	0.23	2.19	5.69
Iceland (1984)	4.11	1.60	8.09
Iceland (1990)	3.99	1.62	8.02
Iceland (1999)	4.15	1.56	8.05
India (1990)	1.52	2.07	6.70
India (1995)	1.68	1.96	6.53
India (2001)	0.03	2.05	5.14
India (2006)	0.85	1.98	5.79
Ireland (1981)	3.74	1.64	7.82
Ireland (1990)	3.78	1.64	7.88
Ireland (1999)	4.12	1.62	8.17
Italy (1981)	1.24	2.16	6.62
Italy (1990)	2.29	2.01	7.31
Italy (1999)	2.06	2.05	7.17
Italy (2005)	2.07	1.93	6.89
Japan (1981)	1.62	2.02	6.59
Japan (1990)	1.58	2.00	6.53
Japan (1995)	2.37	1.75	6.72
Japan (2000)	1.96	1.83	6.48
Japan (2005)	2.46	1.82	6.99
Latvia (1990)	−0.44	2.48	5.70
Latvia (1996)	−0.78	2.27	4.90
Latvia (1999)	−0.70	2.39	5.27
Lithuania (1990)	−0.10	2.47	6.01
Lithuania (1997)	−1.10	2.44	4.99
Lithuania (1999)	−0.23	2.21	5.09
Malta (1983)	2.90	2.05	7.95
Malta (1991)	3.95	1.74	8.28
Malta (1999)	3.61	1.84	8.21
Mexico (1981)	3.33	1.86	7.97
Mexico (1990)	2.32	2.05	7.41
Mexico (1996)	2.36	2.08	7.54
Mexico (2000)	4.34	1.52	8.13
Mexico (2005)	4.48	1.51	8.23
Moldova (1996)	−2.78	2.60	3.73
Moldova (2002)	−1.61	2.47	4.57
Moldova (2006)	−0.85	2.52	5.45
Netherlands (1981)	3.48	1.70	7.70
Netherlands (1990)	3.71	1.62	7.76
Netherlands (1999)	3.89	1.59	7.88
Netherlands (2006)	3.65	1.64	7.76
New Zealand (1998)	3.39	1.72	7.70
New Zealand (2004)	3.80	1.64	7.89
Nigeria (1990)	1.52	2.02	6.59
Nigeria (1995)	2.31	1.72	6.60
Nigeria (2000)	3.32	1.42	6.87
North Ireland (1981)	3.53	1.66	7.69
North Ireland (1990)	3.60	1.71	7.88
North Ireland (1999)	4.13	1.58	8.07
Norway (1982)	3.41	1.80	7.89
Norway (1990)	3.25	1.78	7.68
Norway (1996)	3.25	1.76	7.66

APPENDIX A *Continued*

Country and year	SWB index	Happiness	Life satisfaction
Norway (2007)	3.78	1.67	7.96
Poland (1989)	1.56	2.03	6.64
Poland (1990)	0.67	2.38	6.53
Poland (1997)	1.49	1.98	6.42
Poland (1999)	1.21	2.07	6.37
Poland (2005)	2.38	1.88	7.02
Portugal (1990)	1.67	2.17	7.08
Portugal (1999)	2.01	2.00	6.98
Romania (1993)	−0.05	2.37	5.88
Romania (1998)	−1.26	2.45	4.86
Romania (1999)	−1.30	2.61	5.23
Romania (2005)	−0.33	2.44	5.75
Russia (1990)	−0.72	2.46	5.37
Russia (1995)	−1.79	2.50	4.45
Russia (1999)	−1.59	2.54	4.74
Russia (2006)	0.53	2.24	6.09
Serbia (1996)	0.09	2.20	5.56
Serbia (2001)	0.21	2.17	5.62
Serbia (2006)	0.26	2.31	6.01
Slovakia (1990)	−0.08	2.49	6.15
Slovakia (1991)	0.89	2.38	6.81
Slovakia (1998)	0.45	2.25	6.07
Slovakia (1999)	0.39	2.26	6.03
Slovenia (1992)	0.38	2.38	6.29
Slovenia (1995)	1.10	2.15	6.46
Slovenia (1999)	2.02	2.09	7.23
Slovenia (2005)	2.18	2.03	7.24
South Africa (1982)	1.95	1.95	6.79
South Africa (1990)	0.75	2.18	6.20
South Africa (1996)	0.65	1.98	5.59
South Africa (2001)	1.11	1.88	5.81
South Africa (2007)	2.40	1.85	7.03
South Korea (1982)			5.33
South Korea (1990)	1.39	2.14	6.69
South Korea (1996)		2.00	
South Korea (2001)	1.12	2.04	6.21
South Korea (2005)	1.34	2.01	6.35
Spain (1981)	1.57	2.02	6.60
Spain (1990)	2.26	1.96	7.14
Spain (1995)	1.73	1.95	6.61
Spain (1999)	2.29	1.94	7.09
Spain (2000)	2.16	1.94	6.99
Spain (2007)	2.45	1.95	7.32
Sweden (1982)	3.62	1.76	8.01
Sweden (1990)	3.89	1.64	7.97
Sweden (1996)	3.64	1.66	7.77
Sweden (1999)	3.37	1.71	7.65
Sweden (2006)	3.72	1.61	7.74
Switzerland (1989)	4.14	1.70	8.39
Switzerland (1996)	4.00	1.66	8.14
Switzerland (2007)	3.91	1.64	8.01
Taiwan (1994)	2.06	1.81	6.56
Taiwan (2006)	1.68	1.96	6.58
Turkey (1990)	1.60	1.92	6.41
Turkey (1996)	2.14	1.63	6.20
Turkey (2001)	0.42	2.08	5.62

APPENDIX A *Continued*

Country and year	SWB index	Happiness	Life satisfaction
Turkey (2007)	2.94	1.81	7.46
Ukraine (1996)	−2.41	2.55	3.95
Ukraine (1999)	−1.78	2.56	4.56
Ukraine (2006)	0.30	2.17	5.67
United States (1982)	3.24	1.78	7.67
United States (1990)	3.48	1.71	7.76
United States (1995)	3.68	1.60	7.67
United States (1999)	3.47	1.68	7.65
United States (2006)	3.52	1.62	7.57
Uruguay (1996)	2.03	2.02	7.06
Uruguay (2006)	2.83	1.85	7.46

Note. SWB=subjective well-being.

APPENDIX B

Rising Happiness in 24 European Union Countries

Country	Percentage of people responding "very happy"
Austria (1990)	30
Austria (1999)	36
Austria (EB 2007)	20
Belgium (1981)	33
Belgium (1990)	40
Belgium (1999)	43
Belgium (EB 2007)	40
Britain (1981)	38
Britain (1990)	38
Britain (1998)	33
Britain (2006)	51
Britain (EB 2007)	40
Bulgaria (1990)	7
Bulgaria (1997)	9
Bulgaria (1999)	8
Bulgaria (2006)	11
Bulgaria (EB 2007)	8
Czech Republic (1990)	6
Czech Republic (1991)	7
Czech Republic (1998)	9
Czech Republic (1999)	11
Czech Republic (EB 2007)	16
Denmark (1981)	31
Denmark (1990)	43
Denmark (1999)	45
Denmark (EB 2007)	49
Estonia (1990)	3
Estonia (1996)	5
Estonia (1999)	7
Estonia (EB 2007)	12
Finland (1981)	17
Finland (1990)	20
Finland (1996)	24

APPENDIX B *Continued*

Country	Percentage of people responding "very happy"
Finland (2000)	24
Finland (2005)	30
Finland (EB 2007)	28
France (1981)	19
France (1990)	25
France (1999)	31
France (2006)	36
France (EB 2007)	31
Germany (1990)	16
Germany (1997)	19
Germany (1999)	20
Germany (2006)	20
Germany (EB 2007)	24
Hungary (1982)	11
Hungary (1991)	11
Hungary (1998)	14
Hungary (1999)	17
Hungary (EB 2007)	17
Ireland (1981)	40
Ireland (1990)	44
Ireland (1999)	42
Ireland (EB 2007)	46
Italy (1981)	10
Italy (1990)	16
Italy (1999)	18
Italy (2005)	18
Italy (EB 2007)	16
Latvia (1990)	2
Latvia (1996)	5
Latvia (1999)	7
Latvia (EB 2007)	12
Lithuania (1990)	4
Lithuania (1997)	4
Lithuania (1999)	5
Lithuania (EB 2007)	13
Malta (1983)	13
Malta (1991)	40
Malta (1999)	31
Malta (EB 2007)	26
Netherlands (1981)	34
Netherlands (1990)	46
Netherlands (1999)	46
Netherlands (2006)	42
Netherlands (EB 2007)	43
Poland (1989)	10
Poland (1990)	10
Poland (1997)	18
Poland (1999)	18
Poland (2005)	22
Poland (EB 2007)	19
Portugal (1990)	13
Portugal (1999)	18
Portugal (EB 2007)	17
Romania (1993)	6
Romania (1998)	5
Romania (1999)	4

APPENDIX B *Continued*

Country	Percentage of people responding "very happy"
Romania (2005)	7
Romania (EB 2007)	9
Slovakia (1990)	4
Slovakia (1991)	7
Slovakia (1998)	7
Slovakia (1999)	8
Slovakia (EB 2007)	10
Slovenia (1992)	9
Slovenia (1995)	14
Slovenia (1999)	16
Slovenia (2005)	18
Slovenia (EB 2007)	26
Spain (1981)	20
Spain (1990)	21
Spain (1995)	19
Spain (1999)	20
Spain (2000)	20
Spain (2007)	14
Spain (EB 2007)	23
Sweden (1982)	29
Sweden (1990)	41
Sweden (1996)	40
Sweden (1999)	37
Sweden (2006)	43
Sweden (EB 2007)	38

Note. WVS data updated with data on the percentage ''very happy'' from Eurobarometer 66.3 (EB; 2007).