MODERNIZATION, CULTURAL CHANGE, AND THE PERSISTENCE OF TRADITIONAL VALUES*

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Modernization theorists from Karl Marx to Daniel Bell have argued that economic development brings pervasive cultural changes. But others, from Max Weber to Samuel Huntington, have claimed that cultural values are an enduring and autonomous influence on society. We test the thesis that economic development is linked with systematic changes in basic values. Using data from the three waves of the World Values Surveys, which include 65 societies and 75 percent of the world's population, we find evidence of both massive cultural change and the persistence of distinctive cultural traditions. Economic development is associated with shifts away from absolute norms and values toward values that are increasingly rational, tolerant, trusting, and participatory. Cultural change, however, is path dependent. The broad cultural heritage of a society—Protestant, Roman Catholic, Orthodox, Confucian, or Communist—leaves an imprint on values that endures despite modernization. Moreover, the differences between the values held by members of different religions within given societies are much smaller than are cross-national differences. Once established, such cross-cultural differences become part of a national culture transmitted by educational institutions and mass media. We conclude with some proposed revisions of modernization theory.

The last decades of the twentieth century were not kind to modernization theory, once widely considered a powerful tool for peering into the future of industrial society. Modernization theory's most influential proponent, Karl Marx, claimed that economically developed societies show the future to less developed societies (Marx 1973). His prophecies have had enormous impact, but as the twenty-first century begins, few people anticipate a proletarian revolution or trust a state-run economy. Furthermore, although theorists from Marx to Nietzsche to Lerner to Bell predicted the decline of religion in the wake of modernization, religion and spiritual beliefs have not faded. Instead, social and political debate about religious and emotionally charged issues such as abortion and euthanasia have grown increasingly salient (DiMaggio, Evans, and Bryson 1996; Hunter 1991; Williams 1997), and a resurgence of fundamentalist Islam has established a major cleavage in international politics.

Well into the twentieth century, modernization was widely viewed as a uniquely Western process that non-Western societies could follow only in so far as they abandoned their traditional cultures and assimilated technologically and morally "superior" Western ways. But during the second half of the century, non-Western societies unexpectedly surpassed their Western role models in key aspects of modernization. East Asia, for example, attained the world's highest rate of economic growth. Using official exchange rates, Japan had the highest per capita income of any major nation in the world, led the world in automobile manufacturing and consumer electronics, and had the world's highest life expectancy. Today, few observers would attribute moral superiority to the

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West, and Western economies are no longer assumed to be the model for the world.

Nevertheless, a core concept of modernization theory seems valid today: Industrialization produces pervasive social and cultural consequences, from rising educational levels to changing gender roles. Industrialization is seen as the central element of a modernization process that affects most other elements of society. Marx's failures as a prophet are well documented, but he correctly foresaw that industrialization would transform the world. When he was writing *Das Kapital* (1867), only a handful of societies were industrialized; today, there are dozens of advanced industrial societies, and almost every society on Earth is at some stage of the industrialization process.

Our thesis is that economic development has systematic and, to some extent, predictable cultural and political consequences. These consequences are not iron laws of history; they are probabilistic trends. Nevertheless, the probability is high that certain changes will occur, once a society has embarked on industrialization. We explore this thesis using data from the World Values Surveys. These surveys include 65 societies and more than 75 percent of the world's population. They provide time-series data from the earliest wave in 1981 to the most recent wave completed in 1998, offering new and rich insights into the relationships between economic development and social and political change.

MODERNIZATION OR THE PERSISTENCE OF TRADITIONAL VALUES?

In recent years, research and theory on socioeconomic development have given rise to two contending schools of thought. One school emphasizes the *convergence* of values as a result of "modernization"—the overwhelming economic and political forces that drive cultural change. This school predicts the decline of traditional values and their replacement with "modern" values. The other school of thought emphasizes the *persistence* of traditional values despite economic and political changes. This school assumes that values are relatively independent of economic conditions (DiMaggio 1994). Consequently, it predicts that convergence around some set of "modern" values is unlikely and that traditional values will continue to exert an independent influence on the cultural changes caused by economic development.

In the postwar United States, a version of modernization theory emerged that viewed underdevelopment as a direct consequence of a country's internal characteristics: traditional economies, traditional psychological and cultural traits, and traditional institutions (Lerner 1958; Weiner 1966). From this perspective, traditional values were not only mutable but could—and should—be replaced by modern values, enabling these societies to follow the (virtually inevitable) path of capitalist development. The causal agents in this developmental process were seen as the rich, developed nations that stimulate the modernization of "backward" nations through economic, cultural, and military assistance.

These arguments were criticized as blaming the victim, because modernization theorists assumed that underdeveloped societies needed to adopt "modern" values and institutions to become developed societies (Bradshaw and Wallace 1996). Modernization theory was not only criticized, it was pronounced dead (Wallerstein 1976). The postwar version of modernization theory tended to neglect external factors, such as colonialism, imperialism, and newer forms of economic and political domination. The emerging neo-Marxist and world-systems theorists emphasized the extent to which rich countries exploited poor countries, locking them in positions of powerlessness and structural dependence (Chase-Dunn 1989; Chirot 1977, 1994; Frank 1966; Wallerstein 1974). Underdevelopment, as Frank put it, is *developed.* This new school of thought conveyed the message to poor countries that poverty has nothing to do with internal problems—it is the fault of global capitalism.

World-systems theory itself has not been immune from criticism. For example, Evans (1995) argues that the global division of labor offers opportunities as well as constraints, enabling developing nations to transform themselves and change their positions in the global economy. The involvement of multinational corporations in underdeveloped nations does not appear to be as harmful as world-systems theorists claim. In

fact, foreign investment has been found to stimulate growth (DeSoya and Oneal 1999; Firebaugh 1992) and improve national welfare, benefiting the masses, not just the elites (Firebaugh and Beck 1994). Hein (1992) and Dollar (1992) demonstrate that those with high levels of trade and investment from capitalist countries showed higher subsequent rates of economic growth than did other countries (also see Firebaugh 1999).

The central claim of modernization theory is that economic development is linked with coherent and, to some extent, predictable changes in culture and social and political life. Evidence from around the world indicates that economic development tends to propel societies in a roughly predictable direction: Industrialization leads to occupational specialization, rising educational levels, rising income levels, and eventually brings unforeseen changes—changes in gender roles, attitudes toward authority and sexual norms; declining fertility rates; broader political participation; and less easily led publics. Determined elites in control of the state and the military can resist these changes, but in the long run, it becomes increasingly costly to do so and the probability of change rises.[1]

But cultural change does not take the simple linear path envisioned by Marx, who assumed that the working class would continue to grow until a proletarian revolution brought an end to history. In 1956, the United States became the world's first society to have a majority of its labor force employed in the service sector. During the next few decades, practically all OECD (Organization for Economic Cooperation and Development) countries followed suit, becoming "post-industrial" societies, in Bell's (1973) terms. These changes in the nature of work had major political and cultural consequences (Bell 1973, 1976; Dahrendorf 1959). In marked contrast to the growing materialism linked with the industrial revolution, the unprecedented existential security of advanced industrial society gave rise to an intergenerational shift toward postmaterialist and postmodern values (Inglehart 1977, 1990, 1997). While industrialization was linked with an emphasis on economic growth at almost any price, the publics of affluent societies placed increasing emphasis on quality-of-life, environmental protection, and self-expression. Bell emphasized changes in the nature of work, while Inglehart emphasized the consequences of economic security; but they and others agreed that cultural change in postindustrial society was moving in a new direction. Accordingly, we suggest that economic development gives rise to not just one, but two main dimensions of cross-cultural differentiation: a first dimension linked with early industrialization and the rise of the working class; a second dimension that reflects the changes linked with the affluent conditions of advanced industrial society and with the rise of the service and knowledge sectors.

The shift from preindustrial to industrial society wrought profound changes in people's daily experiences and prevailing worldviews (Bell 1973; Inglehart 1997; Spier 1996). Preindustrial life, Bell (1976) argues, was a "game against nature" in which "one's sense of the world is conditioned by the vicissitudes of the elements—the seasons, the storms, the fertility of the soil, the amount of water, the depth of the mine seams, the droughts and the floods" (p. 147). Industrialization brought less dependence on nature, which had been seen as inscrutable, capricious, uncontrollable forces or anthropomorphic spirits. Life now became a "game against fabricated nature" (Bell 1973:147), a technical, mechanical, rationalized, bureaucratic world directed toward the external problem of creating and dominating the environment. As human control of the environ-

[1] Paradoxically, modernization can actually strengthen traditional values. Elites in underdeveloped nations who attempt to mobilize a population for social change often use traditional cultural appeals, as in Japan's Meiji Restoration. More recently, radical reformist groups in Algeria used Islam to gain peasant support, but as an unintended result strengthened fundamentalist religious values (Stokes and Marshall 1981). Thus, cultural identity can be used to promote the interests of a group (Bernstein 1997) and in the process may strengthen cultural diversity. Generally, "[a]s global integration intensifies, the currents of multiculturalism swirl faster. Under these conditions, which include the juxtaposition of ethnically distinct labor forces and communities, the politics of identity tends to substitute for the civic (universalist) politics of nation-building" (McMichael 1996:42).

ment increased, the role ascribed to religion and God dwindled. Materialistic ideologies arose with secular interpretations of history, and secular utopias were to be attained by human engineering operating through rationally organized bureaucratic organizations.

The emergence of postindustrial society seems to be stimulating further evolution of prevailing worldviews, but it is moving in a different direction. Life in postindustrial societies centers on services, and hence life becomes a "game between persons" in which people "live more and more outside nature, and less and less with machinery and things; they live with, and encounter only, one another" (Bell 1973:148–49). Less effort is focused on producing material objects, and more effort is focused on communicating and processing information. Most people spend their productive hours dealing with other people and symbols. Increasingly, one's formal education and job experience help develop the potential for autonomous decision-making (Bell 1973, 1976). Thus, the rise of postindustrial society leads to a growing emphasis on self-expression (Inglehart 1997). The hierarchical organizations of the industrial age required (and allowed) little autonomous judgment, whereas service and knowledge workers deal with people and concepts, operating in a world in which innovation and the freedom to exercise individual judgment are essential. Self-expression becomes central. Furthermore, the historically unprecedented wealth of advanced industrial societies, coupled with the rise of the welfare state, mean that an increasing share of the population grows up taking survival for granted. Their value priorities shift from an overwhelming emphasis on economic and physical security toward an increasing emphasis on subjective well-being and quality-of-life (Inglehart 1977, 1997). Thus, cultural change is not linear; with the coming of postindustrial society, it moves in a new direction.

Different societies follow different trajectories even when they are subjected to the same forces of economic development, in part because situation-specific factors, such as cultural heritage, also shape how a particular society develops. Weber ([1904] 1958) argued that traditional religious values have an enduring influence on the institutions of a society. Following this tradition, Huntington (1993, 1996) argues that the world is divided into eight major civilizations or "cultural zones" based on cultural differences that have persisted for centuries. These zones were shaped by religious traditions that are still powerful today, despite the forces of modernization. The zones are Western Christianity, the Orthodox world, the Islamic world, and the Confucian, Japanese, Hindu, African, and Latin American zones.

Scholars from various disciplines have observed that distinctive cultural traits endure over long periods of time and continue to shape a society's political and economic performance. For example, Putnam (1993) shows that the regions of Italy in which democratic institutions function most successfully today are those in which civil society was relatively well developed in the nineteenth century and even earlier. Fukuyama (1995) argues that a cultural heritage of "low-trust" puts a society at a competitive disadvantage in global markets because it is less able to develop large and complex social institutions. Hamilton (1994) argues that, although capitalism has become an almost universal way of life, civilizational factors continue to structure the organization of economies and societies: "What we witness with the development of a global economy is not increasing uniformity, in the form of a universalization of Western culture, but rather the continuation of civilizational diversity through the active reinvention and reincorporation of non-Western civilizational patterns" (p. 184). Thus, there are striking cross-cultural variations in the organization of capitalist production and associated managerial ideologies (DiMaggio 1994; Guillén 1994).

The impression that we are moving toward a uniform "McWorld" is partly an illusion. As Watson (1998) demonstrates, the seemingly identical McDonald's restaurants that have spread throughout the world actually have different social meanings and fulfill different social functions in different cultural zones. Although the physical settings are similar, eating in a McDonald's restaurant in Japan is a different social experience from eating in one in the United States or Europe or China. The globalization of communications is unmistakable, but precisely because

its manifestations are so obvious, its effects may be overestimated. While it is obvious that young people around the world are wearing jeans and listening to U.S. pop music, the persistence of underlying value differences is less apparent.

THE EVIDENCE

Data

Our main data source is the World Values Surveys, the largest investigation ever conducted of attitudes, values, and beliefs around the world. This study carried out three waves of representative national surveys: in 1981–1982, 1990–1991, and 1995–1998. It covers 65 countries on all six inhabited continents, and contains more than 75 percent of the world's population. These societies have per capita annual gross national products ranging from $300 to more than $30,000, and their political systems range from long-established stable democracies to authoritarian states.

We use the most recent data for the 65 countries. Data for the following 50 societies are from the 1995-1998 wave: United States, Australia, New Zealand, China, Japan, Taiwan, South Korea, Turkey, Bangladesh, India, Pakistan, the Philippines, Armenia, Azerbaijan, Georgia, Great Britain, East Germany, West Germany, Switzerland, Norway, Sweden, Finland, Spain, Russia, Ukraine, Belarus, Estonia, Latvia, Lithuania, Moldova, Poland, Bulgaria, Bosnia, Slovenia, Croatia, Yugoslavia, Macedonia, Nigeria, South Africa, Ghana, Argentina, Brazil, Chile, Colombia, Dominican Republic, Mexico, Peru, Puerto Rico, Uruguay, Venezuela. Most of the 1995-1998 surveys were carried out in 1996, but Argentina, Australia, China, Croatia, Ghana, Nigeria, Japan, Puerto Rico, Russia, Slovenia, Taiwan and the United States were surveyed in 1995; Armenia, Brazil, Bulgaria, Colombia, West and East Germany, Macedonia, Pakistan and Poland were surveyed in 1997; Bosnia, Great Britain and New Zealand were surveyed in 1998. Data for 15 societies are from the 1990 European Values Survey: Canada, France, Italy, Portugal, the Netherlands, Belgium, Denmark, Iceland, Ireland, Northern Ireland, Austria, Hungary, Czech Republic, Slovakia, and Romania. The number of respondents interviewed in these surveys averages about 1,400 per country. These data are available from the Inter-university Consortium for Political and Social Research (ICPSR) survey data archive at the University of Michigan.[2]

Measures

Our thesis implies that economic development is linked with a broad syndrome of distinctive value orientations. Does such a syndrome exist? Inglehart (1997) analyzed aggregated nation-level data from the 43 societies included in the 1990–1991 World Values Survey and found large and coherent cross-cultural differences. The two most important dimensions that emerged tapped scores of variables and demonstrated that the worldviews of the peoples of rich societies differ systematically from those of low-income societies across a wide range of political, social, and religious norms and beliefs. These two dimensions reflect cross-national polarization between *traditional* versus *secular-rational* orientations toward authority; and *survival* versus *self-expression* values. Each society can be located on a global map of cross-cultural variation based on these two dimensions (Inglehart 1997:81–98).

We use the term "traditional" in a specific sense here. In the course of human history, thousands of societies have existed, most of which are now extinct. These societies had a vast range of characteristics. Infanticide was common in hunting and gathering societies, but became rare in agrarian societies; homosexuality was accepted in some preindustrial societies; and women are believed to have dominated political and social life in some preindustrial societies. Although the full range of "traditions" is diverse, a mainstream version of preindustrial society having a number of common characteristics can be identified. All of the preindustrial societies for which we have data show relatively low levels of tolerance for abortion, divorce, and homosexuality; tend to emphasize male dominance in economic and political life, deference to parental authority, and the im-

[2] For further information about these surveys, see the World Values Survey web site (http://wvs.isr.umich.edu).

Table 1. Items Characterizing Two Dimensions of Cross-Cultural Variation: Nation-Level Analysis

Dimension and Item	Factor Loadings			
	Nation Level		Individual Level	
Traditional vs. Secular-Rational Values[a]				
TRADITIONAL VALUES EMPHASIZE THE FOLLOWING:				
God is very important in respondent's life.	.91	—	.70	—
It is more important for a child to learn obedience and religious faith than independence and determination.[b]	.89	—	.61	—
Abortion is never justifiable.	.82	—	.61	—
Respondent has strong sense of national pride.	.82	—	.60	—
Respondent favors more respect for authority.	.72	—	.51	—
(SECULAR-RATIONAL VALUES EMPHASIZE THE OPPOSITE)				
Survival vs. Self-Expression Values[c]				
SURVIVAL VALUES EMPHASIZE THE FOLLOWING:				
Respondent gives priority to economic and physical security over self-expression and quality-of-life.[d]	—	.86	—	.59
Respondent describes self as not very happy.	—	.81	—	.58
Respondent has not signed and would not sign a petition.	—	.80	—	.59
Homosexuality is never justifiable.	—	.78	—	.54
You have to be very careful about trusting people.	—	.56	—	.44
(SELF-EXPRESSION VALUES EMPHASIZE THE OPPOSITE)				

Source: Nation-level and individual-level data from 65 societies surveyed in the 1990–1991 and 1995–1998 World Values Surveys.

Note: The original polarities vary. The above statements show how each item relates to the given dimension, based on a factor analysis with varimax rotation. Number of cases for nation-level analysis is 65; total N for individual-level is 165,594 (smallest N for any of the above items is 146,789).

[a] Explains 44 percent of cross-national variation, and 26 percent of individual-level variation.

[b] Autonomy index.

[c] Explains 26 percent of the cross-national variation, and 13 percent of the individual-level variation.

[d] Measured by the four-item materialist/postmaterialist values index.

portance of family life, and are relatively authoritarian; most of them place strong emphasis on religion. Advanced industrial societies tend to have the opposite characteristics. It would be a gross oversimplification to assume that all known preindustrial societies had similar characteristics, but one can meaningfully contrast the cultural characteristics of industrial societies with those of this mainstream version of preindustrial society.

There are various ways to measure the character of societal cultures. We build on prior findings by constructing comparable measures of cross-cultural variation that can be used with all three waves of the World Values Surveys at both the individual level and the national level. Starting with the variables identified in analysis of the 1990–1991 surveys, we selected variables that not only tapped these two dimensions, but appeared in the same format in all three waves of the World Values Surveys. Inglehart (1997) used factor scores based on 22 variables, but we reduced this number to 10 items to minimize problems of missing data (if one variable were missing, we would lose an entire nation from the analysis).

Table 1 lists the 10 items that tap the traditional versus secular-rational dimension and the survival versus self-expression dimension, using a factor analysis of the World Values Survey data aggregated to the national level.[3] The items in each dimension

[3] To avoid dropping an entire society from our analysis when one of these variables is not avail-

are highly intercorrelated. The two dimensions explain 70 percent of the total cross-national variation among these 10 variables. This holds true despite the fact that we deliberately selected items covering a wide range of topics. For the traditional/secular-rational dimension, for example, we could have selected five items referring to religion and obtained an even more tightly correlated cluster, but our goal was to measure broad dimensions of cross-cultural variation.

The factor scores generated by the 10 items used in this analysis are highly correlated with the factor scores based on the 22 items used by Inglehart (1997:334–35, 388). The traditional/secular-rational dimension based on the five items used here is almost perfectly correlated (r = .95) with the factor scores from the comparable dimension based on 11 variables; and the survival/self-expression dimension based on five variables is almost perfectly correlated (r = .96) with the survival/self-expression dimension based on 11 variables.

Table 1 also shows the results from a factor analysis of the same variables using the individual-level data. Instead of 123 cases, we now have 165,594 cases. As expected, the factor loadings are considerably lower than those at the national level, where much of the random measurement error normally found in survey data cancels out. Nevertheless, these items produce two clearly defined dimensions with a basic structure similar to that found at the national level.

able, the nation-level aggregate dataset (but not the individual-level dataset) sometimes uses results from another survey in the same country. For example, the materialist/posmaterialist battery was not included in the 1981 surveys in the United States and Australia, but this battery *was* included in the 1980 national election surveys in both countries, and the results are used in these cases. When this option was not available, we ranked all societies on the variable most closely correlated with the missing variable and assigned the mean score of the two adjacent countries in this ranking. For example, the 1997 Bangladesh survey omitted a variable rating the acceptability of homosexuality (V197); but it did include a variable on homosexuals as a group one would not like to have as neighbors (V60). Nigeria and Georgia were the two closest-ranking societies on V60, so Bangladesh was assigned the mean of Nigeria's and Georgia's scores on V197.

Each factor taps a broad dimension of cross-cultural variation involving dozens of additional variables. Table 2 shows 24 additional variables in the World Values Survey that are closely correlated with the traditional/secular-rational values dimension (the median correlation is .61). This dimension reflects the contrast between societies in which religion is very important and those in which it is not, but deference to the authority of God, Fatherland and Family are all closely linked.[4] The importance of the family is a major theme: In traditional societies a main goal in life is to make one's parents proud—one must always love and respect one's parents, regardless of how they behave. Conversely parents must do their best for their children even if their own well-being suffers. People in traditional societies idealize large families, and they actually have them (high scores on this dimension are strongly correlated with high fertility rates). Yet although the people of traditional societies have high levels of national pride, favor more respect for authority, take protectionist attitudes toward foreign trade, and feel that environmental problems can be solved without international agreements, they accept national authority passively: They seldom or never discuss politics. In preindustrial societies the family is crucial to survival. Accordingly, societies at the traditional pole of this dimension reject divorce and take a pro-life stance on abortion, euthanasia, and suicide. They emphasize social conformity rather than individualistic striving, believe in absolute standards of good and evil, support deference to authority, and have high levels of national pride and a nationalistic outlook. Societies with secular-rational values have the opposite preferences on all of these topics.

The survival/self-expression dimension taps a syndrome of trust, tolerance, subjective well-being, political activism, and self-expression that emerges in postindustrial societies with high levels of security. At the

[4] These 65 societies show a tremendous amount of variation. In Pakistan, 90 percent of the population say that God is extremely important in their lives, selecting "10" on a 10-point scale; in both Brazil and Nigeria, 87 percent select this extreme position on the scale; in East Germany and Japan, on the other hand, only 6 percent and 5 percent, respectively, take this position.

Table 2. Correlation of Additional Items with the Traditional/Secular-Rational Values Dimension

Item	Correlation
TRADITIONAL VALUES EMPHASIZE THE FOLLOWING:	
Religion is very important in respondent's life.	.89
Respondent believes in Heaven.	.88
One of respondent's main goals in life has been to make his/her parents proud.	.81
Respondent believes in Hell.	.76
Respondent attends church regularly.	.75
Respondent has a great deal of confidence in the country's churches.	.72
Respondent gets comfort and strength from religion.	.72
Respondent describes self as "a religious person."	.71
Euthanasia is never justifiable.	.66
Work is very important in respondent's life.	.65
There should be stricter limits on selling foreign goods here.	.63
Suicide is never justifiable.	.61
Parents' duty is to do their best for their children even at the expense of their own well-being.	.60
Respondent seldom or never discusses politics.	.57
Respondent places self on right side of a left-right scale.	.57
Divorce is never justifiable.	.57
There are absolutely clear guidelines about good and evil.	.56
Expressing one's own preferences clearly is more important than understanding others' preferences.	.56
My country's environmental problems can be solved without any international agreements to handle them.	.56
If a woman earns more money than her husband, it's almost certain to cause problems.	.53
One must always love and respect one's parents regardless of their behavior.	.49
Family is very important in respondent's life.	.45
Respondent is relatively favorable to having the army rule the country.	.43
Respondent favors having a relatively large number of children.	.41
(SECULAR-RATIONAL VALUES EMPHASIZE THE OPPOSITE)	

Source: Nation-level data from 65 societies surveyed in the 1990–1991 and 1995–1998 World Values Surveys.

Note: The original polarities vary. The above statements show how each item relates to the traditional/secular-rational values dimension, as measured by the items described in Table 1.

opposite extreme, people in societies shaped by insecurity and low levels of well-being, tend to emphasize economic and physical security above all other goals, and feel threatened by foreigners, by ethnic diversity and by cultural change. This leads to an intolerance of gays and other outgroups, an insistence on traditional gender roles, and an authoritarian political outlook.

A central component of this dimension involves the polarization between materialist and postmaterialist values. Extensive evidence indicates that these values tap an intergenerational shift from an emphasis on economic and physical security toward an increased emphasis on self-expression, subjective well-being, and quality-of-life concerns (Inglehart 1977, 1990, 1997). This cultural shift is found throughout advanced industrial society; it emerges among birth cohorts that have grown up under conditions in which survival is taken for granted. These values are linked with a growing emphasis on environmental protection, the women's

Table 3. Correlation of Additional Items with the Survival/Self-Expression Values Dimension

Item	Correlation
SURVIVAL VALUES EMPHASIZE THE FOLLOWING:	
Men make better political leaders than women.	.86
Respondent is dissatisfied with financial situation of his/her household.	.83
A woman has to have children in order to be fulfilled.	.83
Respondent rejects foreigners, homosexuals, and people with AIDS as neighbors. [a]	.81
Respondent favors more emphasis on the development of technology.	.78
Respondent has not recycled things to protect the environment.	.76
Respondent has not attended meeting or signed petition to protect the environment.	.75
When seeking a job, a good income and safe job are more important than a feeling of accomplishment and working with people you like. [b]	.74
Respondent is relatively favorable to state ownership of business and industry.	.74
A child needs a home with both a father and mother to grow up happily.	.73
Respondent does not describe own health as very good.	.73
One must always love and respect one's parents regardless of their behavior.	.71
When jobs are scarce, men have more right to a job than women.	.69
Prostitution is never justifiable.	.69
Government should take more responsibility to ensure that everyone is provided for.	.68
Respondent does not have much free choice or control over his/her life.	.67
A university education is more important for a boy than for a girl.	.67
Respondent does not favor less emphasis on money and material possessions.	.66
Respondent rejects people with criminal records as neighbors.	.66
Respondent rejects heavy drinkers as neighbors.	.64
Hard work is one of the most important things to teach a child.	.65
Imagination is *not* one of the most important things to teach a child.	.62
Tolerance and respect for others are *not* the most important things to teach a child.	.62
Scientific discoveries will help, rather than harm, humanity.	.60
Leisure is not very important in life.	.60
Friends are not very important in life.	.56
Having a strong leader who does not have to bother with parliament and elections would be a good form of government.	.58
Respondent has not taken part and would not take part in a boycott.	.56
Government ownership of business and industry should be increased.	.55
Democracy is not necessarily the best form of government.	.45
Respondent opposes sending economic aid to poorer countries.	.42
(SELF-EXPRESSION VALUES EMPHASIZE THE OPPOSITE)	

Source: Nation-level data from 65 societies surveyed in the 1990–1991 and 1995–1998 World Values Surveys.

Note: The original polarities vary; the above statements show how each item relates to the survival/self-expression dimension, as measured by the items described in Table 1.

[a] Outgroup index.

[b] Job motivation index.

movement, and rising demands for participation in decision-making in economic and political life. During the past 25 years, these values have become increasingly widespread in almost all advanced industrial societies for which extensive time-series evidence is available.

Table 3 conveys the wide range of values that are linked with the survival versus self-expression dimension. Societies that emphasize survival values show relatively low levels of subjective well-being, report relatively poor health, are low on interpersonal trust, relatively intolerant of outgroups, are low on support for gender equality, emphasize materialist values, have relatively high levels of faith in science and technology, are relatively low on environmental activism, and relatively favorable to authoritarian government. Societies high on self-expression values tend to have the opposite preferences on these topics.

When survival is uncertain, cultural diversity seems threatening. When there isn't "enough to go around," foreigners are seen as dangerous outsiders who may take away one's sustenance. People cling to traditional gender roles and sexual norms, and emphasize absolute rules and familiar norms in an attempt to maximize predictability in an uncertain world. Conversely, when survival begins to be taken for granted, ethnic and cultural diversity become increasingly acceptable—indeed, beyond a certain point, diversity is not only tolerated, it may be positively valued because it is interesting and stimulating. In advanced industrial societies, people seek out foreign restaurants to taste new cuisine; they pay large sums of money and travel long distances to experience exotic cultures. Changing gender roles and sexual norms no longer seem threatening.

The past few decades have witnessed one of the most dramatic cultural changes that has occurred since the dawn of recorded history—the emergence of new gender roles enabling women to enter the same occupations as men. Polarization over new gender roles is strikingly evident in the survival/self-expression dimension: One of its highest-loading issues involves whether men make better political leaders than women. In the world as a whole, a majority still accepts the idea that men make better political leaders than women, but this view is rejected by growing majorities in advanced industrial societies and is overwhelmingly rejected by the younger generation within these societies. Equal rights for women, gays and lesbians, foreigners, and other outgroups tend to be rejected in societies where survival seems uncertain and increasingly accepted in societies that emphasize self-expression values.

FINDINGS AND DISCUSSION

Global Cultural Map, 1995–1998

Figure 1 shows the location of 65 societies on the two dimensions generated by the nation-level factor analysis in Table 1. The vertical axis on our global cultural map corresponds to the polarization between traditional authority and secular-rational authority associated with the process of industrialization. The horizontal axis depicts the polarization between survival values and self-expression values related to the rise of postindustrial society.[5] The boundaries around groups of countries in Figure 1 are drawn using Huntington's (1993, 1996) cultural zones as a guide.[6]

Cross-cultural variation is highly constrained. As the traditional/secular-rational dimension's loadings indicate (Tables 1 and 2), if the people of a given society place a strong emphasis on religion, that society's relative position on many other variables can

[5] This cultural map is consistent with an earlier one by Inglehart (1997:334–37) based on the 1990–1991 World Values Surveys. Although our Figure 1 is based on a factor analysis that uses less than half as many variables as Inglehart used (1997), and adds 22 societies that were not included in the earlier map, the overall pattern is strikingly similar to the cultural maps in Inglehart (1997, chaps. 3 and 11). These similarities demonstrate the robustness of the two key dimensions of cross-cultural variation. The same broad cultural zones appear in essentially the same locations, even though some zones now contain many more societies.

[6] An alternative strategy would be to use one of the many available clustering techniques to identify groups of nations and draw boundaries. We prefer to use the theoretical classifications proposed by Huntington and then test for their explanatory power.

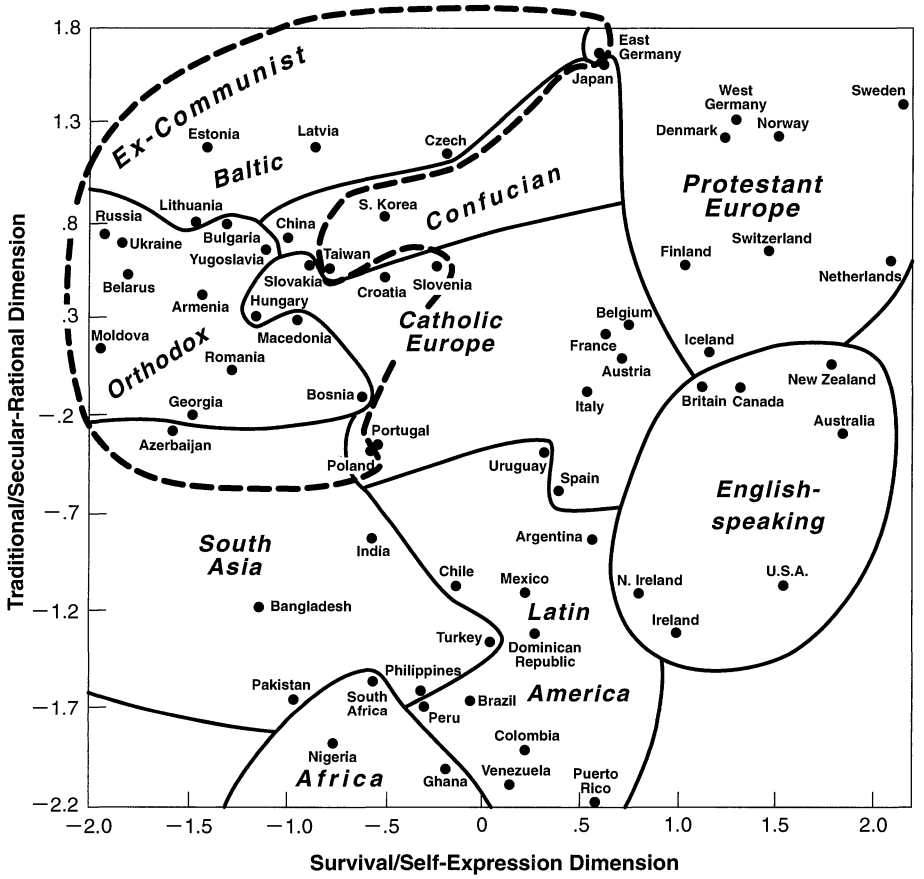

Figure 1. Locations of 65 Societies on Two Dimensions of Cross-Cultural Variation: World Values Surveys, 1990–1991 and 1995–1998

Note: The scales on each axis indicate the country's factor scores on the given dimension. The positions of Colombia and Pakistan are estimated from incomplete data.

be predicted—from attitudes toward abortion, level of national pride (highly religious nations rank high on national pride), the desirability of more respect for authority (religious nations place much more emphasis on respect for authority), to attitudes toward childrearing. The survival/self-expression dimension reflects another wide-ranging but tightly correlated cluster of variables involving materialist values (such as maintaining order and fighting inflation) versus post-materialist values (such as freedom and self-expression), subjective well-being, interpersonal trust, political activism, and tolerance of outgroups (measured by acceptance or rejection of homosexuality, a highly sensitive indicator of tolerance toward outgroups in general).

Economic development seems to have a powerful impact on cultural values: The value systems of rich countries differ systematically from those of poor countries. Figure 1 reflects a gradient from low-income countries in the lower left quadrant, to rich societies in the upper right quadrant. Figure 2 redraws Figure 1, showing the economic zones into which these 65 societies fall. All 19 societies with an annual per capita gross national product over $15,000 rank relatively high on both dimensions and fall into a zone at the upper right-hand corner. This economic zone cuts across the boundaries of the Protestant, ex-Communist, Confucian, Catholic, and English-speaking cultural zones. All societies with per capita GNPs below $2,000 fall into a cluster at the lower left

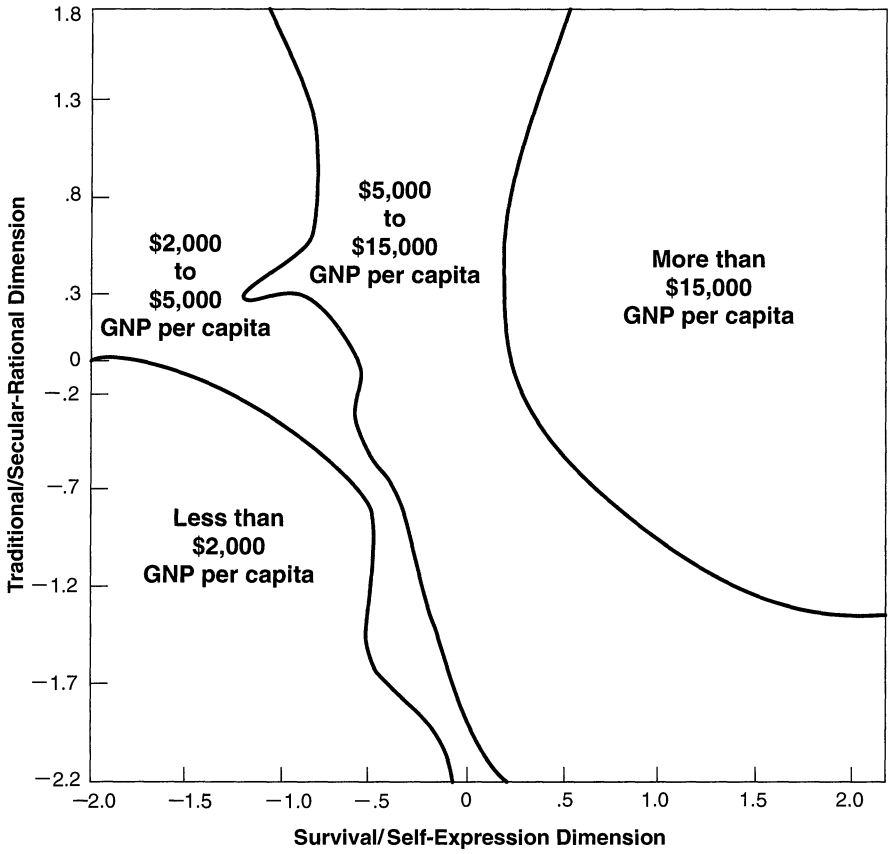

Figure 2. Economic Zones for 65 Societies Superimposed on Two Dimensions of Cross-Cultural Variation

Note: All but one of the 65 societies shown in Figure 1 fit into the economic zones indicated here; only the Dominican Republic is mislocated.

Source: GNP per capita is based on the World Bank's Purchasing Power Parity estimates as of 1995, in U.S. dollars (World Bank 1997:214–15).

of Figure 2, in an economic zone that cuts across the African, South Asian, ex-Communist, and Orthodox cultural zones. The remaining societies fall into two intermediate cultural-economic zones. Economic development seems to move societies in a common direction, regardless of their cultural heritage. Nevertheless, distinctive cultural zones persist two centuries after the industrial revolution began.

GNP per capita is only one indicator of a society's level of economic development. As Marx argued, the rise of the industrial working class was a key event in modern history. Furthermore, the changing nature of the labor force defines three distinct stages of economic development: agrarian society, industrial society, and postindustrial society (Bell 1973, 1976). Thus, another set of boundaries could be superimposed on the societies in Figure 1: Societies with a high percentage of the labor force in agriculture would fall near the bottom of the map, societies with a high percentage of industrial workers would fall near the top, and societies with a high percentage in the service sector would be located near the right-hand side of the map.

The traditional/secular-rational dimension is associated with the transition from agrarian society to industrial society. Accordingly, this dimension shows a strong positive correlation with the percentage in the industrial sector (r = .65) and a negative correlation with the percentage in the agricultural sector

($r = -.49$) but it is weakly linked with the percentage in the service sector ($r = .18$). Thus, the shift from an agrarian mode of production to industrial production seems to bring with it a shift from traditional values toward increasing rationalization and secularization. Nevertheless, a society's cultural heritage also plays a role. Thus, all four of the Confucian-influenced societies have relatively secular values, regardless of the proportion of their labor forces in the industrial sector. The former Communist societies also rank relatively high on this secularization dimension, despite varying degrees of industrialization. Conversely, the historically Roman Catholic societies display relatively traditional values when compared with Confucian or ex-Communist societies with the same proportion of industrial workers.

The survival/self-expression dimension is linked with the rise of a service economy: It shows a .73 correlation with the relative size of the service sector, but is unrelated to the relative size of the industrial sector ($r = .03$). While the traditional/secular-rational values dimension and the survival/self-expression values dimension reflect industrialization and the rise of postindustrial society, respectively, this is only part of the story. Virtually all of the historically Protestant societies rank higher on the survival/self-expression dimension than do all of the historically Roman Catholic societies, regardless of the extent to which their labor forces are engaged in the service sector. Conversely, virtually all of the former Communist societies rank low on the survival/self-expression dimension. Changes in GNP and occupational structure have important influences on prevailing worldviews, but traditional cultural influences persist.

Religious traditions appear to have had an enduring impact on the contemporary value systems of 65 societies, as Weber, Huntington, and others have argued. But a society's culture reflects its entire historical heritage. A central historical event of the twentieth century was the rise and fall of a Communist empire that once ruled one-third of the world's population. Communism left a clear imprint on the value systems of those who lived under it. East Germany remains culturally close to West Germany despite four decades of Communist rule, but its value system has been drawn toward the Communist zone. And although China is a member of the Confucian zone, it also falls within a broad Communist-influenced zone. Similarly Azerbaijan, though part of the Islamic cluster, also falls within the Communist superzone that dominated it for decades.

The influence of colonial ties is apparent in the existence of a Latin American cultural zone. Former colonial ties also help account for the existence of an English-speaking zone. All seven of the English-speaking societies included in this study show relatively similar cultural characteristics. Geographically, they are halfway around the world from each other, but culturally Australia and New Zealand are next-door neighbors of Great Britain and Canada. The impact of colonization seems especially strong when reinforced by massive immigration from the colonial society—thus, Spain, Italy, Uruguay, and Argentina are all near each other on the border between Catholic Europe and Latin America: The populations of Uruguay and Argentina are largely descended from immigrants from Spain and Italy. Similarly, Rice and Feldman (1997) find strong correlations between the civic values of various ethnic groups in the United States, and the values prevailing in their countries of origin—two or three generations after their families migrated to the United States

Figure 1 indicates that the United States is not a prototype of cultural modernization for other societies to follow, as some modernization writers of the postwar era naively assumed. In fact, the United States is a deviant case, having a much more traditional value system than any other advanced industrial society. On the traditional/secular-rational dimension, the United States ranks far below other rich societies, with levels of religiosity and national pride comparable to those found in developing societies. The phenomenon of American exceptionalism has been discussed by Lipset (1990, 1996), Baker (1999), and others; our results support their argument. The United States does rank among the most advanced societies along the survival/self-expression dimension, but even here, it does not lead the world, as the Swedes and the Dutch seem closer to the cutting edge of cultural change than do the Americans.

How Real Are the Cultural Zones?

While the placement of each society in Figure 1 is objective, determined by a factor analysis of survey data from each country, the boundaries drawn around these societies are subjective, using Huntington's (1993, 1996) division of the world into several cultural zones. How "real" are these zones? The boundaries could have been drawn in various ways because these societies have been influenced by a variety of factors. Thus, some of the boundaries overlap others. For example, the ex-Communist zone overlaps the Protestant, Catholic, Confucian, Orthodox, and Islamic cultural zones. Similarly, Britain is located at the intersection of the English-speaking zone and Protestant Europe. Empirically, it is close to all five of the English-speaking societies, and we included Britain in that zone, but with only slight modification we could have put it in Protestant Europe, for it is also culturally close to those societies.

Reality is complex: Britain is both Protestant and English-speaking, and its empirical position reflects both aspects of reality. Similarly, we have drawn a boundary around the Latin American societies that Huntington postulated to be a distinct cultural zone. All 10 of these societies show similar values in global perspective, but with only minor changes we could have defined an Hispanic cultural zone that included Spain and Portugal, which empirically also resemble the Latin American societies. Or we could have drawn a boundary that included Latin America, Catholic Europe, the Philippines, and Ireland in a broad Roman Catholic cultural zone. All these zones are conceptually and empirically justifiable.

Figure 1 is based on similarity of basic values—but the map also reflects the relative distances between these societies on many other dimensions, such as religion, colonial influences, the influence of Communist rule, social structure, and economic level. The influence of many different historical factors can be summed up remarkably well by the two cultural dimensions on which this map is based, but because these various factors do not always coincide neatly, there are some obvious anomalies. For example, East Germany and Japan fall next to each other: Both societies are highly secular, relatively wealthy and have high proportions of industrial workers. But Japan was shaped by a Confucian heritage while East Germany was shaped by Protestantism (though interestingly, when the Japanese first drew up a Western-style constitution, they chose a German model). Despite such anomalies, societies with a common cultural heritage generally *do* fall into common clusters. At the same time, their positions also reflect their level of economic development, occupational structure, religion, and other major historical influences. Thus, their positions in this two-dimensional space reflect a multidimensional reality—and this remarkable socioeconomic-cultural coherence reflects the fact that a society's culture is shaped by its entire economic and historical heritage.

Modernization theory implies that as societies develop economically, their cultures tend to shift in a predictable direction, and our data fit the implications of this prediction. Economic differences are linked with large and pervasive cultural differences (see Figure 2). Nevertheless, we find clear evidence of the influence of long-established cultural zones. Using data from the latest available survey for each society, we created dummy variables to reflect whether a given society is predominantly English-speaking, ex-Communist, and so on for each of the clusters outlined in Figure 1. Empirical analysis of these variables shows that the cultural locations of given societies are far from random (see Table 4). Eight of the nine zones outlined on Figure 1 show statistically significant relationships with at least one of the two major dimensions of cross-cultural variation (the sole exception is the Catholic Europe cluster: It is fairly coherent but has a neutral position on both dimensions). For example, the dummy variable for Protestant Europe shows a .46 correlation with the traditional/secular-rational dimension and a .41 correlation with the survival/self-expression dimension (both correlations are significant at the $p < .001$ level). Similarly, the ex-Communist dummy variable correlates .43 with the traditional/secular-rational dimension and –.74 with the survival/self-expression dimension.

Do these cultural clusters simply reflect economic differences? For example, do the

Table 4. Standardized Coefficients from the Regression of Traditional/Secular-Rational Values and Survival/Self-Expression Values on Economic Development and Cultural Heritage Zone

Independent Variable	Traditional/Secular-Rational		Survival/Self-Expression	
Ex-Communist zone (= 1)	.424**	(3.10)	−.393***	(−4.80)
Real GDP per capita, 1980	.496***	(3.57)	.575***	(4.13)
Percentage employed in industrial sector, 1980	.216	(1.43)	—	
Percentage employed in service sector, 1980	—		.098	(.67)
Adjusted R^2	.50		.73	
Protestant Europe zone (= 1)	.370**	(3.04)	.232*	(2.24)
Real GDP per capita, 1980	.025	(.19)	.362*	(2.12)
Percentage employed in industrial sector, 1980	.553 ***	(4.83)	—	
Percentage employed in service sector, 1980	—		.331*	(2.06)
Adjusted R^2	.50		.63	
English-speaking zone (= 1)	−.300**	(−2.65)	.146	(1.48)
Real GDP per capita, 1980	.394**	(3.02)	.434**	(2.56)
Percentage employed in industrial sector, 1980	.468***	(3.98)	—	
Percentage employed in service sector, 1980	—		.319*	(1.93)
Adjusted R^2	.47		.61	
Latin-American zone (= 1)	−.342**	(−3.29)	.108	(.98)
Real GDP per capita, 1980	.195	(1.72)	.602**	(2.97)
Percentage employed in industrial sector, 1980	.448***	(3.94)	—	
Percentage employed in service sector, 1980	—		.224	(1.13)
Adjusted R^2	.51		.60	
African zone (= 1)	−.189	(−1.65)	.021	(.22)
Real GDP per capita, 1980	.211	(1.72)	.502**	(2.81)
Percentage employed in industrial sector, 1980	.468***	(3.79)	—	
Percentage employed in service sector, 1980	—		.320	(1.85)
Adjusted R^2	.43		.59	
South Asian zone (= 1)	.070	(.51)	.212*	(2.08)
Real GDP per capita, 1980	.258*	(2.04)	.469**	(2.90)
Percentage employed in industrial sector, 1980	.542***	(3.87)	—	
Percentage employed in service sector, 1980	—		.455**	(2.63)
Adjusted R^2	.40		.62	
Orthodox zone (= 1)	.152	(1.26)	−.457***	(−6.94)
Real GDP per capita, 1980	.304*	(2.31)	.567***	(4.77)
Percentage employed in industrial sector, 1980	.432**	(3.13)	—	
Percentage employed in service sector, 1980	—		.154	(1.28)
Adjusted R^2	.42		.80	
Confucian zone (= 1)	.397***	(4.15)	−.020	(−.21)
Real GDP per capita, 1980	.304**	(2.83)	.491**	(2.90)
Percentage employed in industrial sector, 1980	.505***	(4.76)	—	
Percentage employed in service sector, 1980	—		.323*	(1.95)
Adjusted R^2	.56		.59	
Number of countries	49		49	

Note: Numbers in parentheses are *t*-values. Reduced Ns reflect missing data on one or more independent variables.

*$p < .05$ **$p < .01$ ***$p < .001$ (two-tailed tests)

societies of Protestant Europe have similar values simply because they are rich? The answer is no. As Table 4 demonstrates, a society's Catholic or Protestant or Confucian or Communist heritage makes an independent contribution to its position on the global cultural map. The influence of economic development is pervasive. GDP per capita shows a significant impact in five of the eight multiple regressions predicting traditional/secular-rational values, and in all of the regressions predicting survival/self-expression values. The percentage of the labor force in the industrial sector seems to influence traditional/secular-rational values even more consistently than does GDP per capita, showing a significant impact in seven of the eight regressions. The percentage of the labor force in the service sector has a significant impact in six of the eight regressions predicting survival/self-expression. (Note, the relationship between these values and the relative size of the service sector resembles a J-curve, with the impact of the service sector growing stronger as its value increases; consequently, we use the square of the percentage in the service sector in these regressions.)

The impact of a society's historical-cultural heritage persists when we control for GDP per capita and the structure of the labor force. Thus, the ex-Communist dummy variable shows a strong and statistically significant impact on traditional/secular-rational values, controlling for economic development. The secularizing effect of Communism is even greater than that of the relative size of the industrial sector and almost as great as that for GDP per capita. The ex-Communist dummy variable also has a strong significant ($p < .001$) negative impact on survival/self-expression values. Similarly, the Protestant Europe dummy variable has strong and significant impacts on both of the major cultural dimensions. English-speaking culture has a strong and significant impact on the traditional/secular-rational dimension: Controlling for level of development, it is linked with a relatively *traditional* outlook. But although the English-speaking societies are clustered near the right-hand pole of the survival/self-expression dimension, this tendency disappears when we control for the fact that they are relatively wealthy and have a high percentage of the work force in the service sector. All but one of the dummy variables for cultural zones in Table 4 show a statistically significant impact on at least one of the two dimensions. The sole exception is the African group, which forms a tight cluster but contains only three cases. This generates a dummy variable for which 62 cases were coded "0" and only 3 were coded "1." With such an extreme skew, this variable is unlikely to explain much variance.

When we combine the clusters shown in Figure 1 into broader cultural zones with large sample sizes, we generate variables having even greater explanatory power. Figure 3 indicates that the Catholic societies of Eastern Europe constitute a distinct subcluster of the Catholic world—midway between the West European Catholic societies and the Orthodox societies (Figure 1 merges these Eastern and Western clusters into one Catholic Europe zone). The Latin American cluster is adjacent to the two Catholic groups, so we can combine all three of these groups to form a broad Roman Catholic "super-zone." Two other historically Catholic societies, the Philippines and Ireland, are also nearby and thus can be merged into the Catholic zone. Similarly, Protestant Europe and most of the English-speaking zone can be merged into a broad historically Protestant zone. Each of these two new zones covers a vast geographic, historical, and economic range, but each reflects the impact of a common religious-historical influence, and each is relatively coherent in global perspective.

To illustrate the coherence of these clusters, we examine one of the key variables in the literature on cross-cultural differences—interpersonal trust (one component of the survival/self-expression dimension). Coleman (1990), Almond and Verba (1963), Putnam (1993), and Fukuyama (1995) argue that interpersonal trust is essential for building the social structures on which democracy depends and for creating the complex social organizations on which large-scale economic enterprises are based. Figure 4 demonstrates that most historically Protestant societies rank higher on interpersonal trust than do most historically Catholic societies. This holds true even after controlling for levels of economic development: Inter-

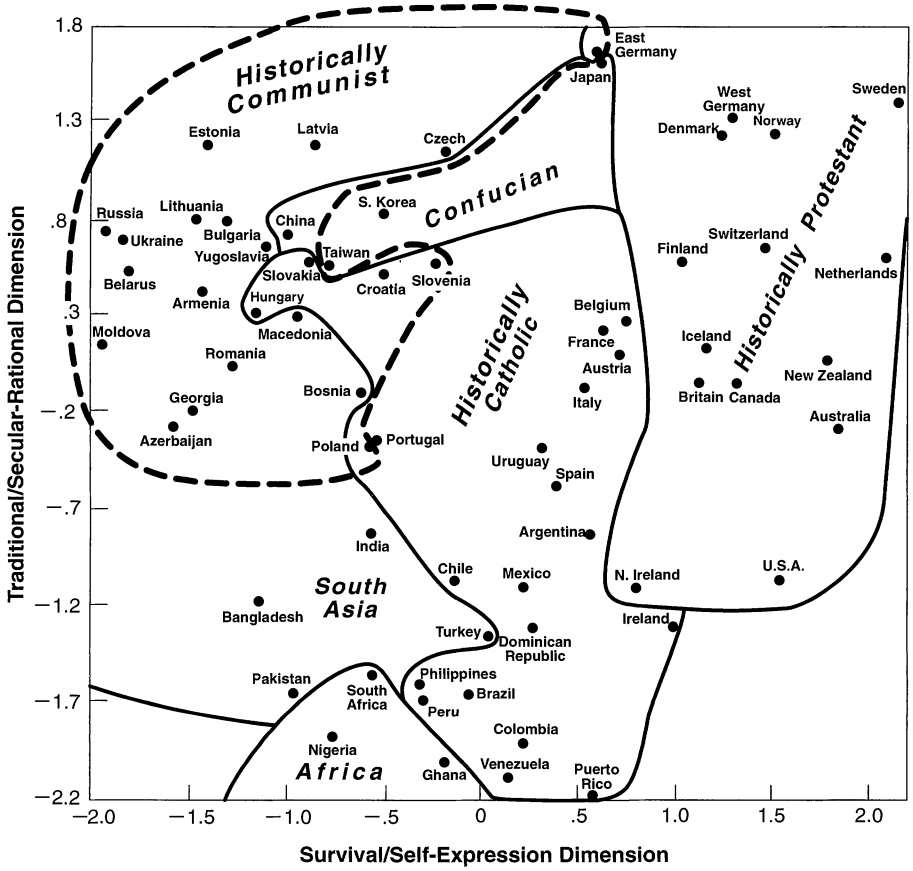

Figure 3. Historically Protestant, Historically Catholic, and Historically Communist Cultural Zones in Relation to Two Dimensions of Cross-Cultural Variation

personal trust is significantly correlated with a society's level of GDP per capita (r = .60), but even rich Catholic societies rank lower than equally prosperous historically Protestant societies. A heritage of Communist rule also has an impact on interpersonal trust, with virtually all ex-Communist societies ranking relatively low (in italic type in Figure 4); thus, the historically Protestant societies that had experienced Communist rule (e.g., East Germany and Latvia) show relatively low levels of interpersonal trust. Of the 19 societies in which more than 35 percent of the public believe that most people can be trusted, 14 are historically Protestant, three are Confucian-influenced, one (India) is predominantly Hindu, and only one (Ireland) is historically Catholic. Of the 10 societies ranking lowest on trust in Figure 4, 8 are historically Catholic and none is historically Protestant.

Within given societies, Catholics rank about as high on interpersonal trust as do Protestants. The shared historical experience of given nations, not individual personality, is crucial. As Putnam (1993) argues, horizontal, locally controlled organizations are conducive to interpersonal trust, whereas rule by large, hierarchical, centralized bureaucracies seems to corrode interpersonal trust. Historically, the Roman Catholic Church was the prototype of a hierarchical, centrally controlled institution; Protestant churches were relatively decentralized and more open to local control. The contrast between local control and domination by a remote hierarchy has important long-term consequences for interpersonal trust. Clearly, these cross-cultural differences do not reflect the contemporary influence of the respective churches. The Catholic church has changed a great deal in recent

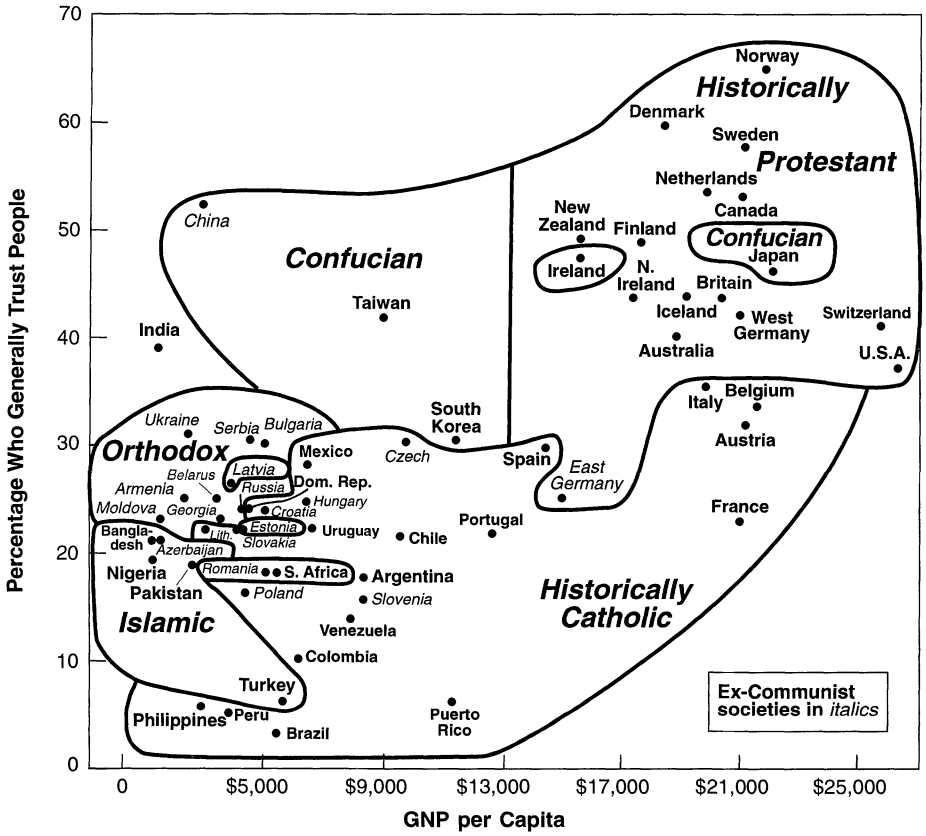

Figure 4. Locations of 65 Societies on Dimensions of Interpersonal Trust and Economic Development, by Cultural/Religious Tradition

Note: GNP per capita is measured by World Bank purchasing power parity estimates in 1995 U.S. dollars. Trust is correlated with GNP per capita at $r = .60$ ($p < .001$).

decades, and in many countries, especially Protestant ones, church attendance has dwindled to the point where only a small minority of the population attends church regularly. While the majority of individuals have little or no contact with the church today, the impact of living in a society that was historically shaped by once-powerful Catholic or Protestant institutions persists today, shaping everyone—Protestant, Catholic, or other—to fit into a given national culture.

The individual-level data provide additional insights concerning the transmission of religious traditions today. There are two main possibilities: (1) that contemporary religious institutions instill distinctively Protestant, Catholic, or Islamic values in their respective followers within each society; or (2) that given religious traditions have historically shaped the national culture of given societies, but that today their impact is transmitted mainly through nationwide institutions, to the population of that society as a whole—even to those who have little or no contact with religious institutions. As Figure 5 indicates, the empirical evidence clearly supports the latter interpretation. Although historically Catholic or Protestant or Islamic societies show distinctive values, the differences between Catholics and Protestants or Muslims within given societies are relatively small. In Germany, for example, the basic values of German Catholics resemble those of German Protestants more than they resemble Catholics in other countries. This is true in the United States, Switzerland, The Netherlands, and other religiously mixed societies: Catholics tend to be slightly more traditional than their Protestant compatriots,

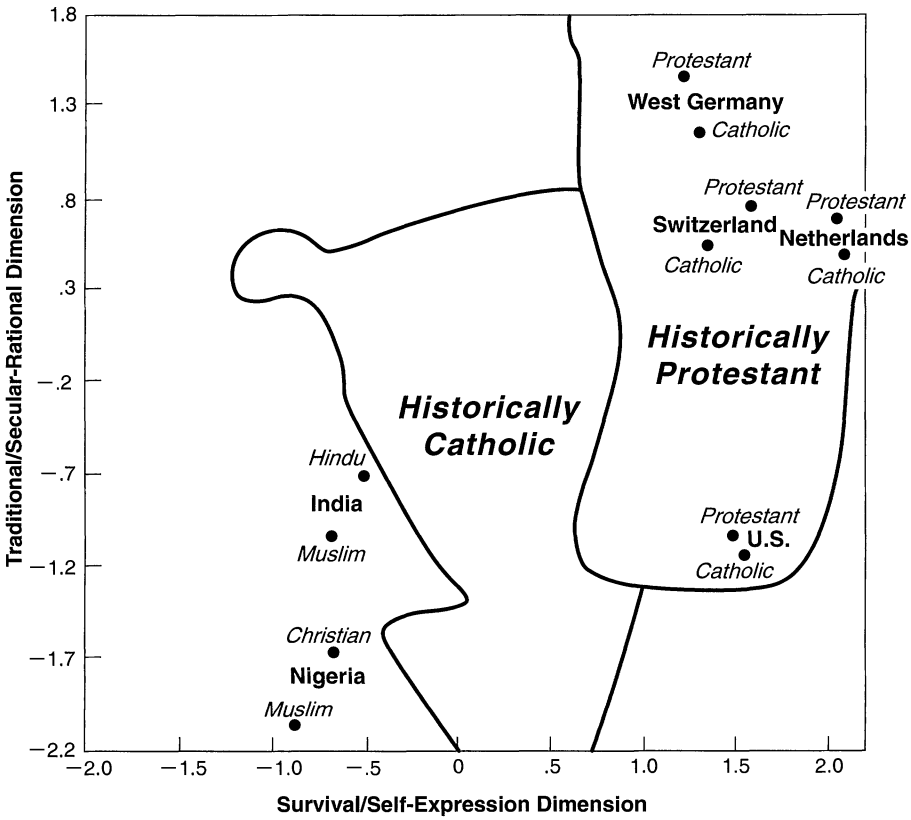

Figure 5. Differences between the Religious Groups within Religiously Mixed Societies on Two Dimensions of Cross-Cultural Variation

but they do not fall into the historically Catholic cultural zone. Rather surprisingly, this also holds true of the differences between Hindus and Muslims in India, and between Christians and Muslims in Nigeria: The basic values of Nigerian Muslims are closer to those of their Christian compatriots than they are to those of Indian Muslims. On questions that directly evoked Islamic or Christian identity, this would probably not hold true; but on these two dimensions of basic values as measured in the World Values Surveys, the cross-national differences dwarf within-nation differences.

Protestant or Catholic societies display distinctive values today mainly because of the historical impact their respective churches had on their societies, rather than through their contemporary influence. For this reason, we classify Germany, Switzerland, and The Netherlands as historically Protestant societies—historically, Protestantism shaped them, even though today (as a result of immigration, relatively low Protestant birth rates, and higher Protestant rates of secularization) they may have more practicing Catholics than practicing Protestants.

These findings suggest that, once established, the cross-cultural differences linked with religion have become part of a national culture that is transmitted by the educational institutions and mass media of given societies to the people of that nation. Despite globalization, the nation remains a key unit of shared experience, and its educational and cultural institutions shape the values of almost everyone in that society.

The persistence of distinctive value systems suggests that culture is path-dependent. Protestant religious institutions gave rise to the Protestant Ethic, relatively high interpersonal trust, and a relatively high degree of social pluralism—all of which may have contributed to earlier economic development

in Protestant countries than in the rest of the world. Subsequently, the fact that Protestant societies were (and still are) relatively prosperous has probably shaped them in distinctive ways. Although they have experienced rapid social and cultural change, historically Protestant and Catholic (and Confucian, Islamic, Orthodox, and other) societies remain distinct to a remarkable degree. Identifying the specific mechanisms through which these path-dependent developments have occurred would require detailed historical analyses that we will not attempt here, but survey evidence from societies around the world supports this conclusion.

More detailed regression analyses that control for the structure of the work force and simultaneously test the impact of various cultural zones, provide additional support for the conclusion that a society's value system is systematically influenced by economic development—but that a Protestant or Catholic or Confucian or ex-Communist heritage also exerts a persistent and pervasive influence on contemporary values and beliefs. Tables 5a and 5b show the results of OLS regression analyses of cross-national differences in traditional/secular-rational values and survival/self-expression values as measured in 65 societies (using the latest available survey for each country: The reduced N reflects missing data on the independent variables). For both dimensions, real GDP per capita (using data from the Penn World tables) and the structure of the work force play major roles. However, the percentage enrolled in the primary, secondary and tertiary educational levels has surprisingly little impact on either dimension. Some modernization theorists emphasize the cultural impact of rising educational levels (Inkeles and Smith 1974; Lerner 1958) but our results suggest that expansion of the educational system is not the crucial factor. The percentage employed in the *industrial* sector has a major impact on traditional/secular-rational values, while the percentage employed in the *service* sector has a major impact on survival/self-expression values.

The people of poor societies and societies with high percentages working in the agrarian sector tend to hold traditional values, while the people of richer societies and societies with a high percentage of the labor force in the industrial sector tend to hold secular-rational values. But a given society's historical heritage also has an important influence on the contemporary values and behavior of its people, even controlling for economic level and occupational structure.[7] Tables 5a and 5b indicate that various other cultural variables also show significant relationships with traditional/secular-rational values, but they overlap with, and tend to be dominated by, the three cultural indicators included here. For centuries, Confucian societies have been characterized by a relatively secular worldview, and they remain so today. Communist regimes made major efforts to eradicate traditional religious values, and they seem to have had some success. But historically Roman Catholic societies proved relatively resistant to secularization, even after controlling for the effects of economic development and Communist rule.

Modernization theory holds that the process of economic development and the rise of the industrial sector are conducive to a secular-rational worldview. As Model 6 in Table 5a demonstrates, when we control for a society's cultural heritage, the impacts of GDP per capita and industrialization are significant. Indeed, Model 6 explains most of the cross-national variation in traditional/secular-rational values with just five variables. Models 3, 4, and 5 demonstrate that each of the three cultural variables makes a substantial contribution to the percent of variance explained, with the Confucian variable making the largest contribution. Including all three cultural indicators in the regression increases the percent of variance explained from 42 percent to 70 percent: A society's heritage makes a big difference.

[7] By controlling for economic development, we may be underestimating the impact of a society's historical heritage because Protestantism, Confucianism or Communism may have helped shape the society's contemporary level of economic development. For example, Weber ([1904] 1958) attributes a crucial role to Protestantism in launching economic growth in Europe, and it is a historical fact that—in its early phase, though clearly not today—industrialization was overwhelmingly concentrated in predominantly Protestant societies and among the Protestant population of mixed societies.

Table 5a. Unstandardized Coefficients from the Regression of Traditional/Secular-Rational Values on Independent Variables Measuring Modernization and Cultural Heritage

Independent Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Real GDP per capita, 1980 (in $1,000s U.S.)	.066* (.031)	.086* (.043)	.131** (.036)	.042 (.029)	.080** (.027)	.122*** (.030)
Percentage employed in industrial sector, 1980	.052*** (.012)	.051*** (.014)	.023 (.015)	.061*** (.011)	.052*** (.011)	.030* (.012)
Percentage enrolled in education	—	−.01 (.01)	—	—	—	—
Ex-Communist (= 1)	—	—	1.05** (.351)	—	—	.952*** (.282)
Historically Catholic (= 1)	—	—	—	−.767** (.216)	—	−.409* (.188)
Historically Confucian (= 1)	—	—	—	—	1.57*** (.370)	1.39*** (.329)
Adjusted R^2	.42	.37	.50	.53	.57	.70
Number of countries	49	46	49	49	49	49

Table 5b. Unstandardized Coefficients from the Regression of Survival/Self-Expression Values on Independent Variables Measuring Modernization and Cultural Heritage

Independent Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Real GDP per capita, 1980 (in $1,000s U.S.)	.090* (.043)	.095* (.046)	.056 (.043)	.120** (.037)	.098** (.037)	.144*** (.017)
(Percentage employed in service sector, 1980)^2	.042** (.015)	.011* (.000)	.035* (.015)	.019 (.014)	.018 (.013)	—
Percentage employed in service sector, 1980	—	−.054 (.039)	—	—	—	—
Percentage enrolled in education	—	−.005 (.012)	—	—	—	—
Ex-Communist (= 1)	—	—	—	−.920*** (.204)	−.883*** (.197)	−.411* (.188)
Historically Protestant (= 1)	—	—	.672* (.279)	—	.509* (.237)	.415** (.175)
Historically Orthodox (= 1)	—	—	—	—	—	−1.182*** (.240)
Adjusted R^2	.63	.63	.66	.74	.76	.84
Number of countries	49	46	49	49	49	49

Source: Latest available survey from 1990–1991 or 1995–1998 World Values Surveys.

Note: Numbers in parentheses are standard errors.

*$p < .05$ **$p < .01$ ***$p < .001$ (two-tailed tests)

The economic modernization indicators (GDP per capita and the relative size of the service sector) in Model 1 explain 63 percent of the cross-national variation in survival/self-expression values (Table 5b). The percentage of the population enrolled in primary, secondary, and tertiary education and the untransformed percentage employed in the service sector do not have significant explanatory power. Nevertheless, three cultural variables do show significant effects: A Protestant cultural heritage is associated with the syndrome of high levels of trust, tolerance, well-being, and postmaterialism that consti-

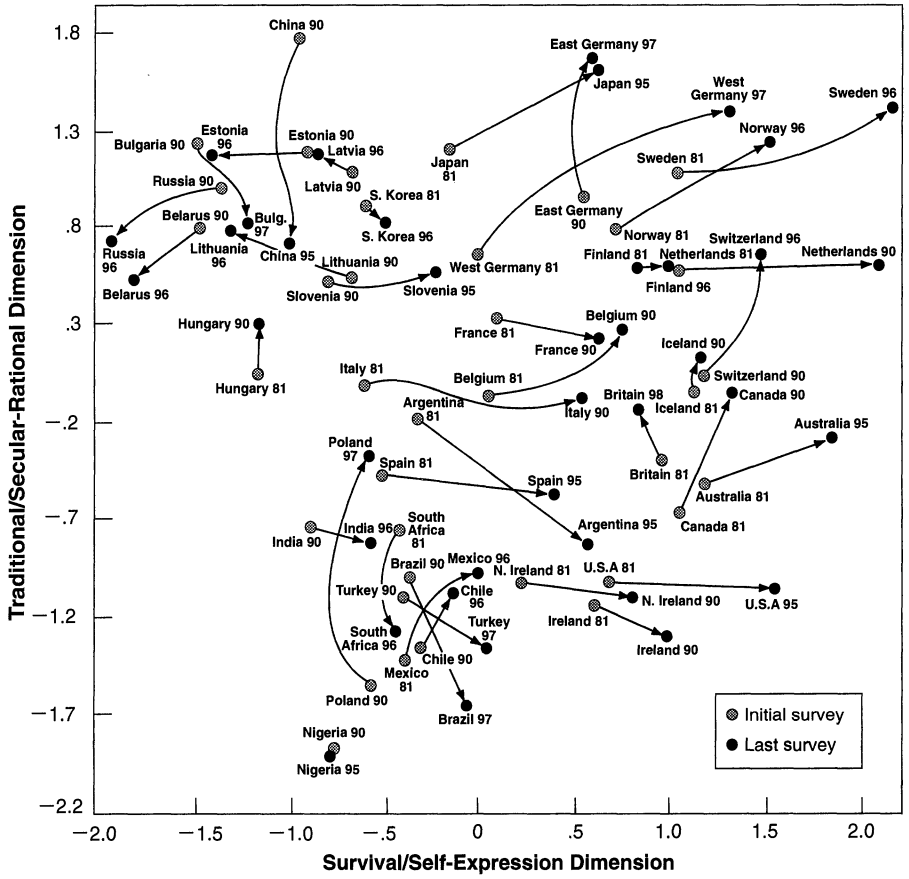

Figure 6. Change Over Time in Location on Two Dimensions of Cross Cultural Variation for 38 Societies

Note: The 38 countries included are those for which time-series data are available from the earliest to the latest time points in the World Values Surveys.

tutes self-expression values; an Orthodox religious heritage and a Communist historical heritage both show a *negative* impact on these values, even after controlling for differences in economic level and social structure. Each cultural factor adds to the percentage of variance explained (Models 3, 4, and 5 in Table 5b), with the ex-Communist variable making the greatest contribution by itself, but with the Orthodox variable making a substantial supplementary contribution. Including all three cultural indicators in the regression equation increases the percentage of variance explained in survival/self-expression values from 63 percent to 84 percent (Model 6). Thus, a combination of economic and cultural indicators explains considerably more variance than do the economic indicators alone.

CHANGES IN VALUES OVER TIME

We have shown that cross-national cultural variation is closely associated with a society's level of economic development and its cultural heritage. Are these merely cross-sectional patterns? Only time-series data can answer this question conclusively. The World Values Surveys provide time-series data covering the relatively brief span from 1981 to 1998.

Figure 6 shows, for each of the 38 societies for which we have data from at least two time points, how values have changed during the years covered by our surveys. For example, the arrow for West Germany, near the upper right-hand corner of Figure 6, shows the changes in values among the West Ger-

man public from 1981 to 1997. Data from East Germany are available only from the 1990 and 1997 surveys, and a somewhat shorter arrow shows the trajectory of change in values for what was once East Germany and is now part of the Federal Republic of Germany. Both regions of Germany experienced substantial changes in values and both moved upward and to the right, toward increasingly secular-rational values and an increasing emphasis on self-expression values. Many countries in Figure 6 show similar shifts in values from 1981 to 1997.

Some societies (e.g., Russia and Belarus) show retrograde movements, moving downward and to the left. With the collapse of the economic, social, and political systems of the Soviet Union in 1990–1991, the peoples of all the Soviet successor states placed increasing emphasis on survival values, and some placed increasing emphasis on traditional values as well.

The pattern underlying these shifts was not random. Our thesis holds that economic development promotes secular and self-expression values, while economic collapse will push in the opposite direction. Thus, most of the societies that show a retrograde movement are ex-Communist societies, reacting to the collapse of their economic, social, and political systems. During the time period for which we have data, the publics of all 20 advanced industrial societies (Australia, Belgium, Canada, Finland, France, East Germany, West Germany, Great Britain, Iceland, Ireland, Northern Ireland, South Korea, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, and the United States) increasingly emphasized self-expression values. Most of these societies (60 percent of them) also moved toward secular/rational values, but the pattern was mixed. Two contrasting trends are found in advanced industrial societies: Established religious institutions are losing the allegiance of their followers, but there is a growing interest in spiritual concerns at the individual level.

The ex-Communist societies fall into two groups: those that experienced economic and social collapse, and those that made a successful transition to market economies. All of the Soviet successor states fall into the former group. Among the societies for which we have time-series data, Russia, Belarus, Estonia, Latvia, and Lithuania all experienced economic decline during the 1990s, showing an average *negative* growth rate of 5.8 percent from 1990 to 1997. Another group of ex-Communist countries—China, Hungary, Poland, and Slovenia—showed positive growth rates, averaging 4.0 percent during this period. All five societies that experienced economic collapse shifted toward an increasing emphasis on survival values, while three of the four publics that experienced economic growth shifted in the opposite direction. Similarly, among the former group, only two shifted toward increasingly secular-rational values, while among the latter group, three out of four did so.

The trend toward modern values is not irreversible. While this seems to be the prevailing trend among industrialized societies, the combination of economic, political, and social collapse that afflicted the former Soviet Union during the 1980s and 1990s clearly reversed this trend, bringing growing misery, distrust, rejection of outgroups, xenophobia, and authoritarian nationalism.[8]

The eight developing and low-income societies for which we have time-series data show two contrasting patterns: There is little evidence of secularization—only two of the eight societies shifted toward the secular-rational pole (Chile and Mexico); Argentina, Brazil, India, Nigeria, South Africa, and Turkey do not shift. Yet most of these societies *do* show some movement from survival values toward self-expression values—only Nigeria and South Africa do not.

Secular-rational values became more widespread in most advanced industrial societies

[8] The contrasting paths that different types of societies have taken in recent years indicates that these cultural changes do not result primarily from the emergence of a global communications network. Most ex-Communist societies have been exposed to Western motion pictures, television, the Internet, and a global pop culture of jeans, Coca-Cola, and rock music. Nevertheless, their underlying basic values have been shifting in the *opposite* direction from other industrial societies. While the rise of a global communications network is important, an even more crucial influence on cultural change is whether people experience secure socioeconomic environments in their daily lives. Security has been notably absent from the former U.S.S.R. during the last decade.

and most ex-Communist societies—except the Soviet successor states—but in only two of the developing and low income societies. Self-expression values became more widespread in all advanced industrial societies and in most other societies, but in none of the Soviet successor states. These findings suggest that rising security tends to produce a shift toward secular values and tolerance, trust, subjective well-being, and a postmaterialist outlook, while social and economic collapse propel a society in the opposite direction. Most societies have experienced economic growth during the last two centuries, but since about 1980 the Soviet successor states have not. However, the collapse of Communism was a onetime historical event and in the long run these societies will probably reestablish economic growth, as several ex-Communist countries already have done. If they do, we predict that they will move toward modern and postindustrial values in the new millennium.

VALUE DIFFERENCES ACROSS BIRTH COHORTS

The basic values of these publics showed complex but systematic shifts during the years from 1981–1982 to 1995–1998. However, from the perspective of modernization, this 17-year span is all too brief. An analysis of the value differences between generations may provide insight into value changes over a much longer period.

A large body of evidence indicates that the basic values of individuals are largely fixed by the time they reach adulthood (Baker, Dalton, and Hildebrandt 1981; Inglehart 1977, 1997; Rokeach 1968, 1973). As Schuman and Scott (1989) argue, generations have "collective memories," imprinted in adolescence and early adulthood, that persist throughout the life cycle. Thus, we expect to find substantial differences between the values of the young and the old in societies that have experienced a rising sense of security (Inglehart 1997:45–47). Theoretically, rising levels of existential security are the key factor underlying intergenerational value change. During the twentieth century, the formative experiences of the younger generations in industrial societies have differed from those of older ones—survival has become increasingly secure and a growing segment of the younger generation has come to take survival for granted. A country's GDP per capita provides a rough indicator of the degree to which survival is secure, but war, disease, crime, and other factors also are significant. The best indicator of existential security during one's formative years, is the country's life expectancy from 1900–1910 (during the childhood of our oldest respondents) to the present. Although we do not have such time-series data for most of these countries, we do know that life expectancies were relatively low at the start of this century and have risen dramatically in all societies that have experienced economic growth, improved diet and improved medical care, and related factors. Even in the United States (already the richest society on Earth), life expectancy in 1900 was only 48 years, and today it is 76 years. Societies with high life expectancies today tend to be societies that have experienced relatively large increases in existential security since 1900.

Thus, we would expect to find strong correlations between a given society's life expectancy and the size of the intergenerational value differences in that society, and we do. Intergenerational value differences are greatest in the societies with the highest life expectancies. Across 61 societies, the correlation between 1995 life expectancy and the size of the intergenerational difference in traditional/secular-rational values is .56, significant at the $p < .001$ level; and the correlation between life expectancy and the size of the intergenerational difference in survival/self-expression values is .41, also significant at the $p < .001$ level.

Figure 7 shows the level of traditional/secular-rational values for seven birth cohorts born during the 70-year span from 1907 to 1976. A graph attempting to depict the age differences among 60-some societies would be unreadable. Thus, to convey the overall pattern in parsimonious fashion, we grouped societies into four categories based on their economic histories during the twentieth century: (1) The "advanced industrial democracies" have 1995 per capita GNPs over $10,000 (based on World Bank purchasing power parity estimates) and have experienced substantial economic growth during the twentieth century (which is the main rea-

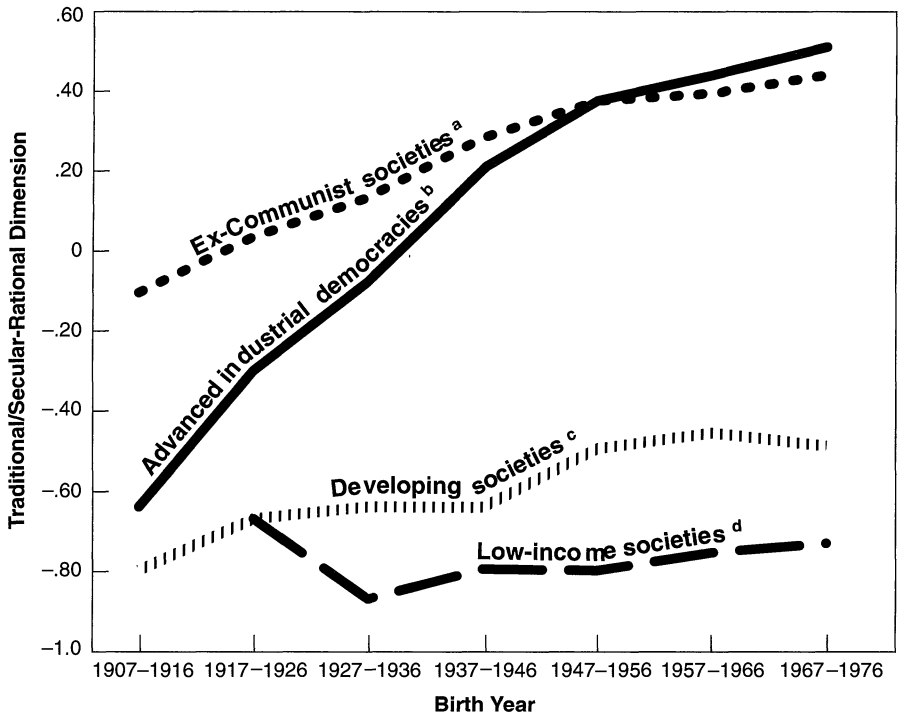

Figure 7. Traditional/Secular-Rational Values by Year of Birth for Four Types of Societies

Source: Data come from the most recent survey for each country in the World Values Surveys.

Note: High values on the traditional/secular-rational dimension indicate secularism. Data are weighted to give each society equal weight.

[a] *Ex-Communist societies* include Armenia, Azerbaijan, Belarus, Bosnia, Bulgaria, Croatia, Czech Rep., Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Ukraine, Yugoslavia (N = 15,804).

[b] *Advanced industrial democracies* include Australia, Austria, Belgium, Canada, Denmark, Finland, France, East Germany, West Germany, Great Britain, Iceland, Ireland, Northern Ireland, Italy, Japan, South Korea, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and the United States (N = 21,947).

[c] *Developing societies* include Argentina, Brazil, Chile, Mexico, South Africa, Puerto Rico, Turkey, Uruguay, Venezuela (N = 8,024).

[d] *Low-income societies* include Dominican Republic, Ghana, India, Nigeria, Peru, Philippines (N = 5,280).

son why they are rich)—according to data from the Penn World tables (Heston and Summers 1991), their real mean per capita GNP in 1992 was 7.0 times higher than it was in 1950; (2) the "ex-Communist societies" experienced even faster economic growth since 1950—their mean real per capita GNP in 1992 was 13.1 times higher than in 1950, but they have experienced major economic reversals in recent years; (3) the "developing societies" include all non-Communist countries with real per capita GNPs from $5,000 to $10,000 per year—their mean per capita GNP in 1992 was 4.7 times higher than in 1950; and (4) the "low-income societies" include all countries with real per capita GNP below $5,000—a group that experienced the least long-term growth, with real per capita GNP in 1992 being only 2.0 times higher than it was in 1950.[9]

As Figure 7 indicates, the young are markedly less traditional than the old in the ad-

[9] Ideally, we want to have economic data since the first decade of the twentieth century to coincide with the birth years of our oldest cohort. For technical reasons, comparable data from before 1950 are not available.

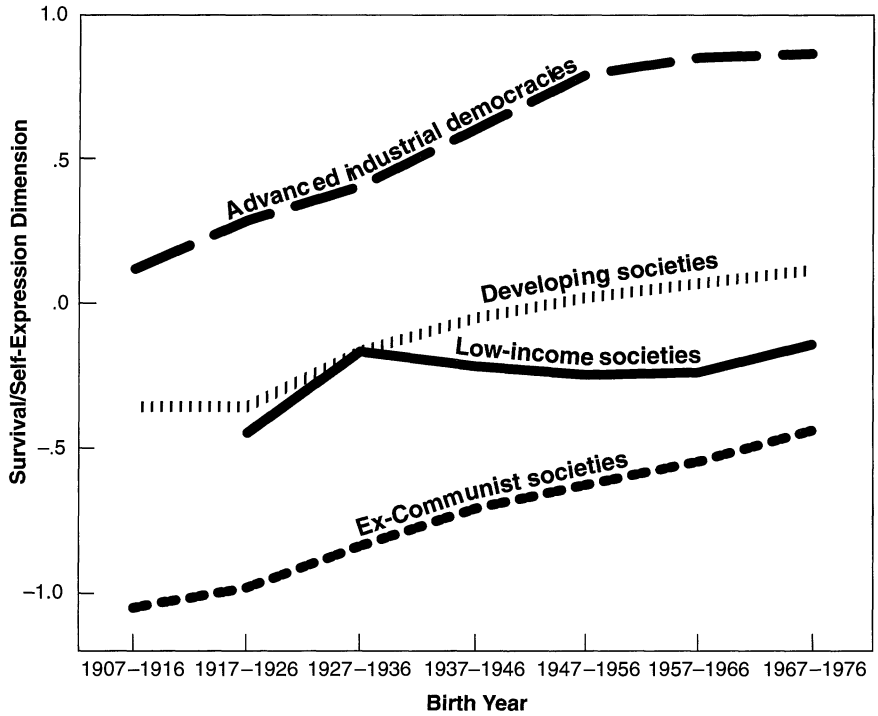

Figure 8. Survival/Self-Expression Values by Year of Birth for Four Types of Societies

Source: Data come from the most recent survey for each country in the World Values Surveys.

Note: High values on the survival/self-expression dimension indicate high self-expression. Data are weighted to give each society equal weight. See the note to Figure 7 for groupings of societies.

vanced industrial democracies and in the ex-Communist societies. But this holds true only in societies that have experienced substantial economic growth since 1950. The steep slope indicates that younger groups have much more secular-rational worldviews than do older groups in both capitalist and ex-Communist industrial societies. The slope is less steep in developing societies, and in low-income societies the young and the old are about equally likely to hold traditional values.

While change in economic conditions seems to play a significant role in differences across birth cohorts, that is only part of the story. Thus, the older groups that were brought up in ex-Communist societies exhibit stronger secular-rational values than do those of comparable age in any other type of society. Their formative years were characterized by rapid economic growth during an era when Communism seemed to be surpassing capitalism. Moreover, they were subjected to powerful campaigns to eradicate religion and traditional values, which probably had some impact. Accordingly, we find steep value differences between the older and younger cohorts in ex-Communist societies. During the last two decades, however, these societies experienced economic stagnation and declining ideological fervor, and the intergenerational differences flatten out—virtually disappearing among the young. Conversely, the oldest cohorts in advanced industrial societies show much more traditional values than do their peers in ex-Communist societies; but advanced industrial societies show a steeper slope that continues longer, so that their youngest cohorts are even less traditional than are their peers in the ex-Communist societies. The pattern in Figure 7 is consistent with the expectation of large intergenerational value differences in societies that have experienced rising life expectancies and long-term economic growth, but not in societies that are only beginning to do so.

Figure 8 shows the levels of survival/self-expression values among seven birth cohorts

in the four types of societies. Again, the steepest intergenerational differences occur in advanced industrial societies and in ex-Communist societies, relatively small intergenerational differences occur in developing societies, and little difference is found between the values of older and younger cohorts in the low-income societies. In contrast with Figure 7, Figure 8 shows that ex-Communist societies rank much lower than other societies on the "syndrome" of trust, tolerance, subjective well-being, political activism, and self-expression that constitutes this major dimension of cross-cultural variation. In part, this may reflect the impact of current circumstances: During the last decade most ex-Communist societies have been in turmoil, with the peoples of the Soviet successor states experiencing the collapse of their economic, political, and social systems. Life has been insecure and unpredictable, and life expectancy has actually fallen. This results in a complex pattern: Although we find a relatively steep intergenerational slope, suggesting a long-term trend during the last 60 years in which peoples' lives became increasingly secure, the immediate reality is that the peoples of the former Communist societies now emphasize survival values even more strongly than do the peoples of low-income societies. In other words, we find both cohort and period effects.

Because we have data only from the 1990 and 1995 surveys for over half of these societies, we cannot perform the type of cohort analysis that might enable us to separate these long-term and short-term changes. The fact that the ex-Communist societies currently rank so low suggests that economic and political collapse has had a substantial impact. Evidence from the 1981 World Values Survey (in which Hungary and Tambov oblast, a representative region of Russia, were the only Communist societies included) indicates that these societies had significantly higher levels of subjective well-being in 1981 than they do now. But even then, their levels were considerably lower than those in advanced industrial societies. Overall levels of well-being eroded sharply with the collapse of Communist systems, most of which now show levels of subjective well-being far below those of the low-income countries. Because subjective well-being is a core component of this values dimension, we suspect that the strong emphasis on survival values shown by ex-Communist societies in Figure 7 is partly due to the collapse of Communism in 1989–1991.

The absence of intergenerational change in low-income societies suggests a continuing emphasis on survival values by the overwhelming majority of their people throughout the past several decades.[10] In the ex-Communist societies, by contrast, successive birth cohorts experienced rising levels of economic security until the collapse of Communism propelled them downward. The low levels of self-expression values found in ex-Communist societies are not solely the result of current economic factors, however. Even in 1981, a decade before the collapse of the Soviet Union, these societies showed lower lev-

[10] Societies with traditional values also have much higher fertility rates than those with secular-rational values, which enables traditional values to remain widespread despite the forces of modernization. Our traditional/secular-rational values index shows a strong negative correlation with the 1995 fertility rates of these societies ($r = -.75$), after controlling for economic development, education, and social structural variables. Today, most industrial societies have fertility rates below the replacement level. In Germany, Russia, Japan, Spain, and Italy, the average woman of child-bearing age now produces from 1.2 to 1.6 children (2.1 is the replacement rate). In contrast, low-income societies continue to have much higher fertility rates (due, in part, to the high rates of reproduction encouraged by traditional values). In Nigeria, for example, the average woman currently produces 5.5 children, and she has them earlier in life, shortening the span between generations. The fertility differences between industrial and developing societies are so large that we observe two seemingly incompatible trends: (1) Most societies are industrializing, and industrialization tends to bring increasingly secular worldviews; but (2) today, larger numbers of people than ever before hold traditional values. In 1970, 73 percent of the world's population lived in developing countries and 27 percent lived in developed countries. By 1996, the developed countries contained only 20 percent of the world's population; by 2020, they will contain an estimated 16 percent of the world's population (U.S. Census Bureau 1996). The peoples of most developed countries have shifted toward modern values, but their societies contain a diminishing share of the world's population.

els of subjective well-being than societies that had a fraction of their per capita GNP. As our multiple regression analysis indicates, the low levels of self-expression values found in ex-Communist societies persist, even after controlling for economic variables. In part, they may reflect the consequences of living under repressive authoritarian regimes.

THE PERSISTENCE OF RELIGIOUS AND SPIRITUAL BELIEFS

As a society shifts from an agrarian to an industrial economy and survival comes to be taken for granted, traditional religious beliefs tend to decline. Nevertheless, as the twenty-first century opens, cleavages along religious lines remain strong. Why has religion been so slow to disappear?

There are several reasons. For example, although rising existential security does seem to make religious faith less central, the converse is also true, and history has taken an ironic turn. Communist-style industrialization was especially favorable to secularization, but the collapse of Communism has given rise to pervasive insecurity and a return to religious beliefs. In 1990, when a tottering but still dominant Communist party ruled Russia, 56 percent of Russians described themselves as religious. By 1995, when the Soviet political, economic, and social systems had collapsed, 64 percent of Russians described themselves as religious—a figure that is not only well above the previous level for Russia, but above the average level for advanced industrial societies. Belarus and the three Baltic republics all have shown a similar religious revival. Seventy years of Communist rule did not eradicate religion in the U.S.S.R., and the collapse of Communism brought a resurgence of religious orientations.

The data reveal two contrasting trends: the decline of attendance at religious services throughout advanced industrial society, on one hand, and on the other, the persistence of religious beliefs and the rise of spirituality. Among the 20 advanced industrial societies for which we have time-series data, 16 show declining rates of church attendance and only 2 show increases (Table 6). Although the United States has been exceptionally resistant to secularization (Hout and

Table 6. Percentage Attending Religious Services at Least Once a Month, by Country and Year

Country	1981	1990–1991	1995–1998	Net Change
Advanced Industrial Democracies[a]				
Australia	40	—	25	–15
Belgium	38	35	—	– 3
Canada	45	40	—	– 5
Finland	13	13	11	– 2
France	17	17	—	0
East Germany	—	20	9	–11
West Germany	35	33	25	–10
Great Britain	23	25	—	+ 2
Iceland	10	9	—	– 1
Ireland	88	88	—	0
Northern Ireland	67	69	—	+ 2
South Korea	29	60	27	– 2
Italy	48	47	—	– 1
Japan	12	14	11	– 1
Netherlands	40	31	—	– 9
Norway	14	13	13	– 1
Spain	53	40	38	–15
Sweden	14	10	11	– 3
Switzerland	—	43	25	–18
United States	60	59	55	– 5
Ex-Communist Societies[b]				
Belarus	—	6	14	+ 8
Bulgaria	—	9	15	+ 6
Hungary	16	34	—	+18
Latvia	—	9	16	+ 7
Poland	—	85	74	– 11
Russia	—	6	8	+ 2
Slovenia	—	35	33	– 2
Developing and Low-Income Societies[c]				
Argentina	56	55	41	–15
Brazil	—	50	54	+ 4
Chile	—	47	44	– 3
India	—	71	54	–17
Mexico	74	63	65	– 9
Nigeria	—	88	87	– 1
South Africa	61	—	70	+ 9
Turkey	—	38	44	+ 6

[a] Sixteen of 20 advanced industrial democracies declined; mean change = –5.

[b] Of ex-Communist societies, 5 of 7 increased; mean change = + 4.

[c] Of developing and low-income societies, 5 of 8 declined; mean change = – 4.

Greeley 1998), our data show modestly declining church attendance even in this country—a trend also found in the General Social Surveys from 1989 to 1998 (Smith 1999). Among the ex-Communist societies, however, the pattern is quite different: Five of the seven societies for which we have time-series data show *rising* church attendance. Among developing societies we find a mixed pattern, with roughly equal numbers of countries showing rising and declining rates of attendance.[11]

A decline in the prevalence of traditional religious values characterizes industrialization, but not necessarily the postindustrial phase. The need for security is not the only attraction of religion. People have always sought answers to such questions as: Where do we come from? Where are we going? Why are we here? The need for answers may be especially acute in the face of disaster, but it does not die out in postindustrial society. Spiritual concerns will probably always be part of the human outlook. The established churches today may be on the wrong wavelength for most people in postindustrial societies, but new theologies, such as the "theology" of environmentalism, or New Age beliefs, are emerging to fill an expanding niche (Baker 1999). With the rise of postindustrial society, allegiance to the established religious institutions continues to decline, *but spiritual concerns do not.* Wuthnow (1998) argues, for example, that the decline of organized religion in America is accompanied by the rise of spiritual concerns, a shift from what he calls a "spirituality of dwelling" (emphasizing sacred places) to a "spirituality of seeking" (emphasizing a personal quest for new spiritual avenues). Wuthnow's thesis seems relevant beyond the American context. Postmaterialists are less attached to traditional forms of religion than are materialists, but they are *more* likely to spend time thinking about the meaning and purpose of life. And in the three successive waves of the World Values Surveys, concern for the mean-

[11] The illiterate (and most traditional) segment of the population in developing societies tends to be underrepresented in these surveys. Because this segment of the population is a major part of the public in low-income societies, we suspect that these data overstate the decline of religious participation in these societies.

Table 7. Percentage Rating the "Importance of God in Their Lives" as "10" on a 10-Point Scale, by Country and Year

Country	1981	1990–1991	1995–1998	Net Change
Advanced Industrial Democracies[a]				
Australia	25	—	21	–4
Belgium	9	13	—	+4
Canada	36	28	—	–8
Finland	14	12	—	–2
France	10	10	—	0
East Germany	—	13	6	–7
West Germany	16	14	16	0
Great Britain	20	16	—	–4
Iceland	22	17	—	–5
Ireland	29	40	—	+11
Northern Ireland	38	41	—	+3
Italy	31	29	—	–2
Japan	6	6	5	–1
Netherlands	11	11	—	0
Norway	19	15	12	–7
Spain	18	18	26	+8
Sweden	9	8	8	–1
Switzerland	—	26	17	–9
United States	50	48	50	0
Ex-Communist Societies[b]				
Belarus	—	8	20	+12
Bulgaria	—	7	10	+3
Hungary	21	22	—	+1
Latvia	—	9	17	+8
Russia	—	10	19	+9
Slovenia	—	14	15	+1
Developing and Low-Income Societies[c]				
Argentina	32	49	57	+25
Brazil	—	83	87	+4
Chile	—	61	58	–3
India	—	44	56	+12
Mexico	60	44	50	–10
Nigeria	—	87	87	0
South Africa	50	74	71	+21
Turkey	—	71	81	+10

[a] Eleven of 19 advanced industrial democracies declined; mean change = –1.

[b] Of ex-Communist societies, 6 of 6 increased; mean change = +6.

[c] Of developing and low-income societies, 5 of 8 increased; mean change = +6.

ing and purpose of life became *stronger* in most advanced industrial societies.

The subjective importance of religious beliefs has changed little in most advanced industrial democracies. For example, the World Values Surveys asked, "How important is God in your life?" (This variable is a particularly effective indicator of overall religiosity and was a component of the traditional/secular-rational values dimension). The percentage choosing "10," the highest score on the question's 10-point scale, declined only slightly in advanced industrial democracies (see Table 7). Although the publics in the overwhelming majority of these societies reported lower rates of church attendance, only about half of these societies show declining emphasis on the importance of God, and the mean change is a decline of only 1 percentage point. Religious feeling holds up even more strongly in the rest of the world. In all six of the ex-Communist societies for which we have time-series data, the importance attached to God increased. A similar pattern held in most of the developing and low-income societies: The importance of God in one's life increased in five of the eight societies, and in one of the societies in which it did not increase (Nigeria), it remained at an extremely high level.

The subjective importance of God declined slightly in advanced industrial democracies, but increased in the world as a whole. But even in advanced industrial societies, broader spiritual concerns have become more widespread. The World Values Surveys' respondents were asked, "How often, if at all, do you think about the meaning and purpose of life?" Four alternatives were offered: "often," "sometimes," "rarely," and "never." The percentage saying that they "often" think about the meaning and purpose of life increased in 26 of the 37 societies for which we have time-series data, and the increase was most pronounced in the advanced industrial democracies, where 16 of our 20 societies show increased interest in spiritual concerns (Table 8). The power of the established hierarchical churches may be declining, but the rise of postindustrial society does not necessarily diminish interest in religion. Indeed, the evidence suggests that it leads to growing interest in spiritual concerns, broadly defined.

Table 8. Percentage Saying They "Often" Think About the Meaning and Purpose of Life, by Country and Year

Country	1981	1990–1991	1995–1998	Net Change
Advanced Industrial Democracies[a]				
Australia	34	—	44	+10
Belgium	22	29	—	+7
Canada	38	43	—	+5
Finland	32	38	40	+8
France	36	39	—	+3
East Germany	—	40	47	+7
West Germany	29	30	41	+12
Great Britain	34	36	—	+2
Iceland	39	36	—	–3
Ireland	25	34	—	+9
Northern Ireland	29	33	—	+4
South Korea	29	39	—	+10
Italy	36	48	—	+12
Japan	21	21	26	+5
Netherlands	21	31	—	+10
Norway	26	31	32	+6
Spain	24	27	24	0
Sweden	20	24	28	+8
Switzerland	—	44	43	–1
United States	48	48	46	–2
Ex-Communist Societies[b]				
Belarus	—	35	47	+12
Bulgaria	—	44	33	–11
China	—	30	26	–4
Estonia	—	35	39	+4
Hungary	44	45	—	+1
Latvia	—	36	43	+7
Lithuania	—	41	42	+1
Russia	—	41	45	+4
Slovenia	—	37	33	–4
Developing and Low-Income Societies[c]				
Argentina	30	57	51	+21
Brazil	—	44	37	–7
Chile	—	54	50	–4
India	—	28	23	–5
Mexico	32	40	39	+7
Nigeria	—	60	50	–10
South Africa	38	57	46	+8
Turkey	—	38	50	+12

[a] Sixteen of 20 advanced industrial democracies increased; mean change = +6.

[b] Of ex-Communist societies, 6 of 9 increased; mean change: +1.

[c] Of developing and low-income societies, 4 of 8 increased; mean change = +3.

CONCLUSION

Evidence from the World Values Surveys demonstrates both massive cultural change and the persistence of distinctive traditional values. Economic development is associated with pervasive, and to some extent predictable, cultural changes. Industrialization promotes a shift from traditional to secular-rational values, while the rise of postindustrial society brings a shift toward more trust, tolerance, well-being, and postmaterialist values. Economic collapse tends to propel societies in the opposite direction. If economic development continues, we expect a continued decline of institutionalized religion. The influence of traditional value systems is unlikely to disappear, however, as belief systems exhibit remarkable durability and resilience. Empirical evidence from 65 societies indicates that values can and do change, but also that they continue to reflect a society's cultural heritage.

Modernization theorists are partly right. The rise of industrial society is linked with coherent cultural shifts away from traditional value systems, and the rise of postindustrial society is linked with a shift away from absolute norms and values toward a syndrome of increasingly rational, tolerant, trusting, postindustrial values. But values seem to be path dependent: A history of Protestant or Orthodox or Islamic or Confucian traditions gives rise to cultural zones with distinctive value systems that persist after controlling for the effects of economic development. Economic development tends to push societies in a common direction, but rather than converging, they seem to move on parallel trajectories shaped by their cultural heritages. We doubt that the forces of modernization will produce a homogenized world culture in the foreseeable future.

We propose several modifications of modernization theory. First, modernization does not follow a linear path. The rise of the service sector and the transition to a knowledge society are linked with a different set of cultural changes from those that characterized industrialization. Moreover, protracted economic collapse can reverse the effects of modernization, resulting in a return to traditional values, as seems to be happening in the former Soviet Union.

Second, the secularization thesis is oversimplified. Our evidence suggests that it applies mainly to the industrialization phase—the shift from agrarian society to industrial society that was completed some time ago in most advanced industrial societies. This shift was linked with major declines in the role of the church, which led Marx and others to assume that, in the long run, religious beliefs would die out. The shift from agrarian to urban industrial society reduces the importance of organized religion, but this is counterbalanced by growing concerns for the meaning and purpose of life. Religious beliefs persist, and spiritual concerns, broadly defined, are becoming more widespread in advanced industrial societies.

Third, cultural change seems to be path dependent. Economic development tends to bring pervasive cultural changes, but the fact that a society was historically shaped by Protestantism or Confucianism or Islam leaves a cultural heritage with enduring effects that influence subsequent development. Even though few people attend church in Protestant Europe today, historically Protestant societies remain distinctive across a wide range of values and attitudes. The same is true for historically Roman Catholic societies, for historically Islamic or Orthodox societies, and for historically Confucian societies.

Fourth, it is misleading to view cultural change as "Americanization." Industrializing societies in general are *not* becoming like the United States. In fact, the United States seems to be a deviant case, as many observers of American life have argued (Lipset 1990, 1996)—its people hold much more traditional values and beliefs than do those in any other equally prosperous society (Baker 1999). If any societies exemplify the cutting edge of cultural change, it would be the Nordic countries.

Finally, modernization is probabilistic, not deterministic. Economic development tends to transform a given society in a predictable direction, but the process and path are not inevitable. Many factors are involved, so any prediction must be contingent on the historical and cultural context of the society in question.

Nevertheless, the central prediction of modernization theory finds broad support:

Economic development is associated with major changes in prevailing values and beliefs: The worldviews of rich societies differ markedly from those of poor societies. This does not necessarily imply cultural convergence, but it does predict the general direction of cultural change and (in so far as the process is based on intergenerational population replacement) even gives some idea of the rate at which such change is likely to occur.

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