

way in all types of societies, East and West, as well as North and South. The results indicate that an additive index, based on summing up the five Postmaterialist items (producing an index having scores ranging from 0 to 5) can be used in virtually any of the 43 societies included in the World Values survey. Consequently, we can construct a cross-nationally comparable index of Materialist/Postmaterialist values, based on the nine items that do have globally consistent polarity (assigning neutral polarity to the two items referring to the economy, and the item referring to "more beautiful cities"). This index is used throughout this book, except when only the original four-item index is available.

On the whole, the cross-national similarities underlying mass responses to the Materialist/Postmaterialist values items are far more striking than the cross-national differences.

## The Shift toward Postmaterialist Values, 1970–1994

### INTRODUCTION

The basic values of publics throughout advanced industrial society have been undergoing a gradual intergenerational shift during the past several decades. Although different countries have shifted at different rates, economic and technological changes have had a broadly similar impact across these societies. As Postmodernization theory implies, the process applies to advanced industrial society in general.

In 1970 we hypothesized that the value priorities of Western publics were shifting from Materialist values toward Postmaterialist values—from giving top priority to physical sustenance and safety, toward heavier emphasis on belonging, self-expression, and the quality of life (Inglehart, 1971). The predicted intergenerational value shift could not be demonstrated until many years had passed; and whether or not it was occurring has been hotly disputed (Böltken and Jagodzinski, 1985; Thomassen and Van Deth, 1989; Trump, 1991; Clarke and Dutt, 1991). Only in recent years has a sufficiently long time series become available to test the prediction reliably. This chapter examines cross-national survey data over a 24-year period. The results show a clear and statistically significant trend toward Postmaterialist values in almost all of the societies for which we now have detailed time series measurements over this period. These values also show short-term fluctuations linked with changing rates of inflation and unemployment, as the value change thesis implies; but the long-term trend seems to result mainly from intergenerational replacement.

Evidence from the 43 societies surveyed in the World Values surveys enables us to test the value change hypothesis on a broader basis than has ever before been possible. The thesis implies that we should observe two quite different findings, both of which are important: societies with high *levels* of economic development should have relatively high *levels* of Postmaterialist values, and societies that have experienced relatively high rates of economic *growth* should show relatively large *differences* between the values of younger and older generations. As we will see, the evidence supports both hypotheses. It appears that this value shift occurs in any society that has experienced sufficient economic development in recent decades so that the preadult experiences of younger birth cohorts have been significantly more secure than those of older cohorts. Large intergenerational differences are found in societies that have experienced rapid growth in GNP per capita and are negligible in societies that have had little or no growth. And these value differences are enduring characteristics of given birth cohorts. Accordingly, as intergenerational

population replacement has occurred, Materialist priorities have become less prevalent and Postmaterialism has increased in 18 of the 20 societies for which we have comparable data over the past decade.

The shift toward Postmaterialist values has far-reaching implications. It is only one part of a broader shift toward Postmodern values, involving changing orientations toward politics, work, family life, religion, and sexual behavior. Far more data are available on the evolution of Postmaterialist values than on any other component of this cultural shift, but a broad range of orientations are linked with Materialist/Postmaterialist values, and most of them seem to be moving on the same trajectory. Thus, charting the transition to Postmaterialist values can help us understand the entire Postmodern shift.

#### THE RISE OF POSTMATERIALIST VALUES

As noted earlier, research on the Materialist/Postmaterialist value change has been guided by two key hypotheses (Inglehart, 1977):

1. *A Scarcity Hypothesis.* An individual's priorities reflect the socioeconomic environment: one places the greatest subjective value on those things that are in relatively short supply.

2. *A Socialization Hypothesis.* The relationship between socioeconomic environment and value priorities is not one of immediate adjustment: a substantial time lag is involved, because, to a large extent, one's basic values reflect the conditions that prevailed during one's preadult years.

The scarcity hypothesis is similar to the principle of diminishing marginal utility. And it implies that recent economic developments have significant consequences. During the period since World War II, advanced industrial societies have attained much higher real income levels than ever before in history. Coupled with the emergence of the welfare state, this has brought about a historically unprecedented situation: most of their population does *not* live under conditions of hunger and economic insecurity. This has led to a gradual shift in which needs for belonging, self-expression, and a participant role in society became more prominent. Prolonged periods of prosperity tend to encourage the spread of Postmaterialist values; economic decline tends to have the opposite effect.

But there is no simple one-to-one relationship between economic level and the prevalence of Postmaterialist values. These values reflect one's *subjective* sense of security, not one's economic level per se. While rich people tend to feel more secure than poor people, one's sense of security is also influenced by the cultural setting and social welfare institutions in which one is raised. Thus, the scarcity hypothesis must be supplemented with the socialization hypothesis: a basic personality structure tends to take shape by the time an individual reaches adulthood, and changes relatively little thereafter.

Taken together, these two hypotheses generate a set of predictions concerning value change. First, while the scarcity hypothesis implies that prosperity

is conducive to the spread of Postmaterialist values, the socialization hypothesis implies that neither an individual's values nor those of a society as a whole will change overnight. For the most part, fundamental value change takes place as younger birth cohorts replace older ones in the adult population of a society. Consequently, after a long period of rising economic and physical security, one should find substantial differences between the value priorities of older and younger groups: they have been shaped by different experiences in their formative years.

This thesis was first tested in surveys carried out in 1970 with representative national cross sections of the publics of Great Britain, France, West Germany, Italy, the Netherlands, and Belgium. The people interviewed chose the goals they considered most important among a set of items designed to tap economic and physical security, on the one hand, or self-expression and the non-material quality of life, on the other hand.

In the original four-item Materialist/Postmaterialist values battery, each respondent was asked to select what their country's two top goals should be among the following choices: (1) maintaining order in the nation, (2) giving the people more say in important government decisions, (3) fighting rising prices, (4) protecting freedom of speech. Respondents who select "maintaining order" and "fighting inflation" are classified as Materialists; those who choose "giving the people more say" and "freedom of speech" are classified as Postmaterialists. The four remaining combinations are classified as "Mixed."

As the preceding chapter indicates, the Materialist/Postmaterialist dimension travels well cross-culturally. It taps an almost universal concern: feeling secure or insecure about survival is meaningful in virtually any culture. Consequently, the Materialist/Postmaterialist dimension emerges in such societies as South Korea or Turkey with a basic structure roughly similar to that found in Western industrial societies. There are very few Postmaterialists in low-income societies, so the dimension is less important and less strongly structured there, accounting for a smaller percentage of the variance than it does in advanced industrial societies. But these items seem to tap comparable concerns in poor countries and in rich countries.

Not only do the Postmaterialist items have similar connotations within this 12-item battery, but they also have similar demographic correlates: in all societies that have experienced substantial increases in economic security during the past several decades, these values tend to be emphasized more heavily by the younger birth cohorts.

Our theory of value change generates a number of predictions. The most basic prediction specifies what kind of cultural change should take place under given conditions: existential security leads to the rise of Postmodern values. This chapter focuses on the shift from Materialist to Postmaterialist values, while chapters 9 and 10 test this prediction concerning various other aspects of the Postmodern shift. In addition to predicting what kinds of values should become more widespread, chapter 1 spelled out a series of detailed predictions

concerning when, where, and how fast value change should occur. This chapter tests the following predictions, connected with the shift from Materialist to Postmaterialist values:

1. Postmaterialist and other Postmodern values will be most widespread in the richest and otherwise most secure societies. The publics of impoverished and insecure societies will emphasize survival values to a much greater extent.

2. Within any given society, Postmodern values will be most widespread among the more secure strata: the wealthier and better educated will be most likely to hold a whole range of security values, including Postmaterialism; the less secure strata will emphasize survival priorities.

3. Short-term fluctuations will follow the scarcity hypothesis: prosperity will enhance the tendency to emphasize well-being values; economic downturn, civil disorder, or war will lead people to emphasize survival values.

4. Long-term changes will also reflect the scarcity hypothesis: in societies that have experienced high levels of security for several decades, we should find a long-term shift from survival values toward well-being values. This shift is not universal: it should occur only in those societies that have attained sufficient existential security so that a substantial share of the population takes survival for granted; but it is not uniquely Western: it appears in any society that has experienced the transition to high mass security.

5. In those societies that have experienced a long period of rising economic and physical security, we will find substantial differences between the value priorities of older and younger groups, with the young being much likelier to emphasize well-being values than the old.

6. These intergenerational value differences should be reasonably stable over time: though immediate conditions of security or insecurity will produce short-term fluctuations, the underlying differences between younger and older birth cohorts should persist over long periods of time.

7. In cross-national perspective, large amounts of intergenerational change will be found in countries that have experienced relatively high rates of economic growth; conversely, the difference between the values of young and old will be small or nonexistent in countries that experienced relatively little increase in per capita income. Thus, high levels of prosperity should be conducive to high levels of Postmaterialism and other Postmodern values; high rates of economic growth should produce relatively rapid rates of value change, and relatively large intergenerational differences.

8. If one knows the distribution of values across birth cohorts in a given nation at a given time, one can estimate how much change will be produced in a given time span as a result of intergenerational population replacement. Thus for Western Europe, using the four-item Materialist/Postmaterialist values battery, population replacement should produce a shift toward Postmaterialism of approximately one point per year on the Materialist-Postmaterialist percentage difference index.

The 1970 European Community surveys were the first to test the value change thesis. The results showed the age group differences that the social-

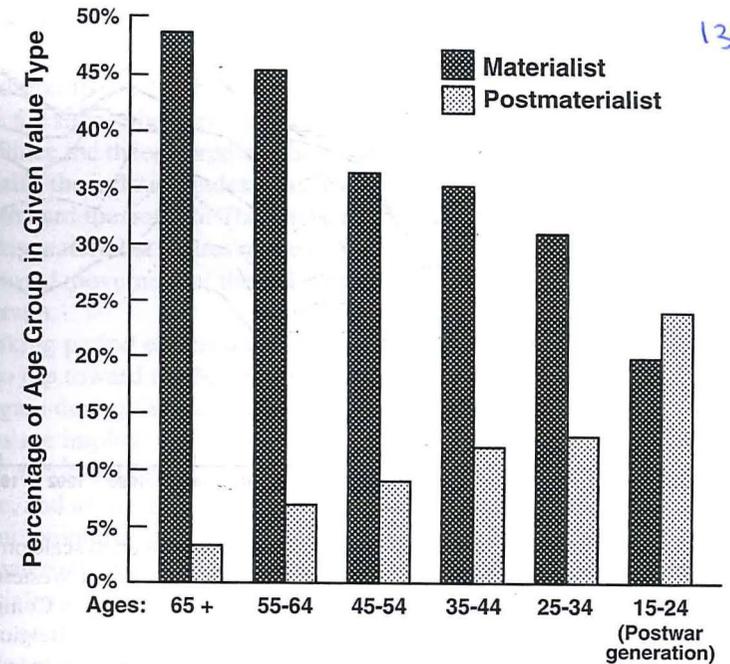


Figure 5.1. Value type by age group, among the publics of Britain, France, West Germany, Italy, Belgium, and the Netherlands in 1970. Source: European Community survey of February 1970; based on original four-item Materialist/Postmaterialist values battery. Reprinted from Inglehart, 1990: 76.

ization hypothesis predicts. Figure 5.1 depicts this pattern in a pooled sample of six Western European publics. The basic pattern is similar in all six countries: among the older groups, Materialists outnumber Postmaterialists enormously; as we move to younger groups, the proportion of Materialists declines and that of Postmaterialists increases. Thus, among the oldest cohort, Materialists outnumber Postmaterialists by more than 12 to 1; but among the youngest cohort, Postmaterialists are more numerous than Materialists.

The age differences shown here are striking. But does this pattern reflect life-cycle effects, birth cohort effects, or some combination of the two? Our theory predicts that we will find birth cohort differences; but these differences between the priorities of young and old could reflect some inherent tendency for people to become more materialistic as they age. If so, then as time goes by, the values of the younger groups will eventually become just like those of the older groups, producing no change in the society as a whole. Does aging make one place ever-increasing emphasis on economic and physical security? The only way to answer this question is by following given birth cohorts over time, to see if they become more Materialist as they age. We can do so: the four-item Materialist/Postmaterialist values battery has been asked in cross-national sur-

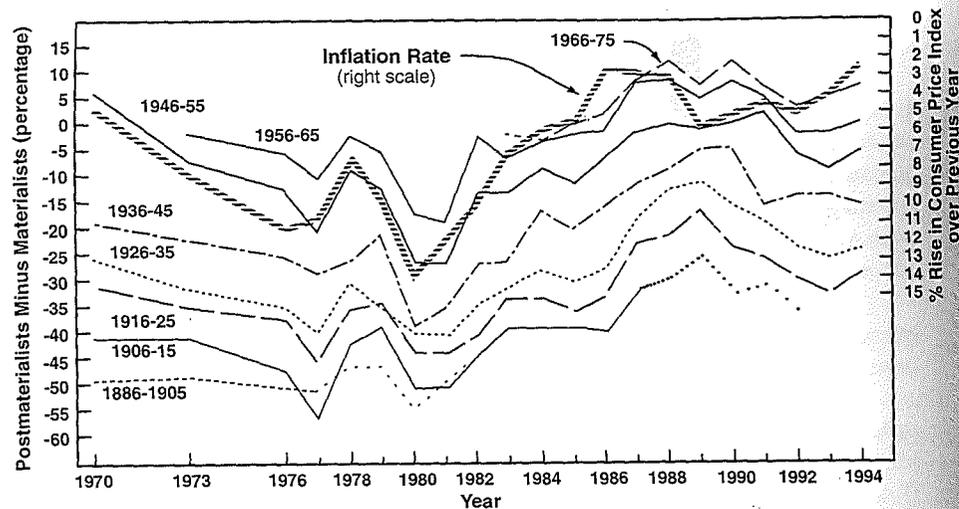


Figure 5.2. Cohort analysis with inflation rate superimposed (using inverted scale on right): percent Postmaterialists minus percent Materialists in eight birth cohorts in six Western European societies, 1970–94. *Source:* Based on combined weighted sample of European Community surveys carried out in West Germany, France, Britain, Italy, the Netherlands, and Belgium, in given years ( $N = 243,356$ ), and based on the four-item values index, which was included in each of these surveys. Inflation data from statistical office of the European Communities.

veys carried out by the European Community at least once a year in almost every year from 1970 to the present.

Figure 5.2 traces the balance between Materialists and Postmaterialists within given birth cohorts from February 1970 to fall 1994, using the pooled data from the surveys carried out in Britain, France, West Germany, Italy, Belgium, and the Netherlands (an analysis based on more than 240,000 interviews). Each cohort's position at a given time is calculated by subtracting the percentage of Materialists in that cohort from the percentage of Postmaterialists. Thus, at the zero point on the vertical axis, the two groups are equally numerous (the cohort born in 1946–55 was located near this point in 1970). On this graph, the proportion of Postmaterialists increases as we move up the vertical axis; the proportion of Materialists increases as we move down. If the age differences reflected a life-cycle effect, then each of the cohort lines should move downward, toward the Materialist pole, as we move from left to right across this 24-year period.

We find no such downward movement. Instead, the younger birth cohorts remain relatively Postmaterialist throughout the period from 1970 to 1994: given cohorts did not become more Materialist as they aged by almost a quarter of a century—instead, many of these cohorts were slightly *less* Materialist at the end of this period than they were at the start.

### WHAT CAUSES THE PERIOD EFFECTS?

In addition to presenting the results of a cohort analysis from 1970 to 1994, figure 5.2 shows the current rate of inflation, superimposed as a heavy shaded line. Since the theory predicts that Postmaterialist values will rise when inflation falls, the inflation index runs from low rates at the top of the graph to high rates toward the bottom. This makes it easy to see that (as predicted) inflation and Postmaterialist values move up and down together, bearing in mind that a *downward* movement of the inflation line indicates *rising* rates of inflation on this graph.

Striking period effects are evident: there was a clear tendency for each cohort to dip toward the Materialist pole during the recession of the mid-1970s and again during the recessions of the early 1980s and the early 1990s. These effects are implicit in the theory, which links Postmaterialist values with economic security. High inflation rates tend to make people feel economically insecure, and as the graph demonstrates, there is a remarkably close fit between current economic conditions and the short-term fluctuations in Materialist/Postmaterialist values. High levels of inflation depress the proportion of Postmaterialists. But these period effects are transient; they disappear when economic conditions return to normal. In the long run, the values of a given birth cohort are remarkably stable. Despite the fluctuations linked with current economic conditions, the intergenerational differences persist: at virtually every point in time, each younger cohort is significantly less Materialist than all of the older ones. These enduring generational differences reflect differences in the formative conditions that shaped the respective birth cohorts: the older ones were influenced by the hunger and insecurity that prevailed during World War I, the Great Depression, and World War II; the younger ones have grown up in an era of historically unprecedented prosperity.

Strictly speaking, these data do not prove that generational change is taking place: one can never distinguish between cohort effects, period effects, and aging effects on statistical grounds alone, since any one of them is a perfect linear function of the other two. Theoretically, the pattern in figure 5.2 might reflect a combination of life-cycle (or aging) effects plus some mysterious period effect that somehow prevented each cohort from becoming more Materialist as it aged from 1970 to 1994. So far, no one has identified a period effect that might have done this (for a debate on this point, see Clarke and Dutt, 1991; and Inglehart and Abramson, 1994); and if someone did, it would be an ad hoc explanation, designed to fit an existing set of observations.

The generational change hypothesis, on the other hand, was published long before these data were collected—and it predicted both the robust cohort differences subsequently observed, and the period effects. If one agrees that the downward swings toward Materialist values found in the mid-1970s, the early 1980s, and the early 1990s were probably due to the economic fluctuations that occurred in those years (and the empirical fit is very good), then the pattern looks like a clear case of intergenerational value change. If this is true, it has

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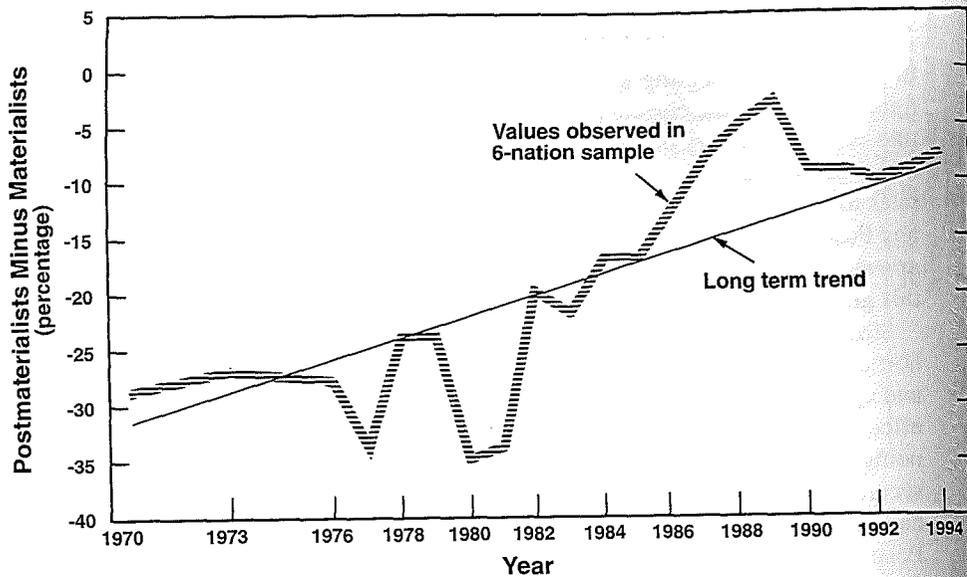


Figure 5.3. The trend toward Postmaterialist values in six Western European societies, 1970–94. The trend toward Postmaterialism is significant at the .001 level. Beta = .61,  $p < .001$ . Source: Based on combined weighted sample of European Community surveys carried out in West Germany, France, Britain, Italy, the Netherlands, and Belgium, in given years (N = 243,356).

far-reaching implications: in the long run the values of these societies should shift in the predicted direction.

#### VALUE CHANGES OBSERVED IN WESTERN COUNTRIES, 1970–1994

A good deal of intergenerational population replacement has taken place since 1970. The intergenerational value change thesis predicts that in the long run this should produce a shift from Materialist toward Postmaterialist values among the populations of these societies. More than a quarter century has passed since these values were first measured in 1970. Do we find the predicted value shift? As the following evidence demonstrates, we do indeed. In a companion volume to this book, Abramson and Inglehart (1995) present a far more detailed analysis of the shift from Materialist to Postmaterialist values than is given here. This chapter summarizes and updates the key findings.

Figure 5.3 shows the overall trend among the populations of the six nations first surveyed in 1970. Like the cohort trajectories in the preceding figure, the trend line shown here dips steeply downward in each of the three recent recessions; but the long-term trajectory shows a clear upward trend, and regression analysis reveals that this trend is statistically significant at the .001 level

(see Abramson and Inglehart, 1995: ch. 4). Although each given birth cohort in the preceding figure shows relatively little net movement upward or downward from 1970 to 1994, the line for the *total* sample shows a strong upward movement, reflecting intergenerational population replacement: by 1994, the two oldest cohorts had almost completely disappeared from the sample and had been replaced by two younger (and much more Postmaterialist) cohorts. In 1970, the mean position for the sample as a whole was located about halfway between the cohort born in 1916–25 and the cohort born in 1926–35; by 1994 this point had moved up more than two cohorts and was located slightly below the position of the 1946–55 birth cohort. A substantial value shift had occurred in the population as a whole.

In 1970, Materialists outnumbered Postmaterialists overwhelmingly in all of these countries, but by 1994, the balance had shifted markedly toward Postmaterialist values. In 1970, within these six Western European nations as a whole, Materialists outnumbered Postmaterialists by a ratio of about 4 to 1. By 1994, this ratio had fallen to less than 1.5 to 1: Postmaterialists had become almost as numerous as Materialists.

Figure 5.3 shows the trend in six European countries for which detailed time series data are available from more than 40 European Community surveys that were carried out in *each* of these countries from 1970 to 1994. An almost equally detailed time series is available for Denmark and Ireland, from the surveys that were carried out in each country from 1973 to 1994. Figure 5.4 shows the net shift in these eight countries, plus the United States. Eight of the nine countries show a shift from Materialist toward Postmaterialist values, with only Belgium remaining unchanged. In the early 1970s, Materialists heavily outnumbered Postmaterialists in all nine of these countries. By the early 1990s, Postmaterialists had increased almost everywhere and had become more numerous than Materialists in the United States, Denmark, and the Netherlands.

If one knows the relative proportions of Materialists and Postmaterialists in each birth cohort of a given nation, plus the size of each cohort (obtainable from census figures), one can calculate the amount of value shift that would take place each year as a result of intergenerational population replacement. Abramson and Inglehart (1987) have done so, finding that in Western Europe, the population replacement process would bring a shift toward Postmaterialism of slightly more than one point per year in the percentage difference index or PDI (this constitutes the vertical axis in figures 5.2, 5.3, and 5.4). This is a relatively modest gain; in any given year, it could easily be swamped by fluctuations in current conditions linked with security or insecurity. But these short-term fluctuations move in both directions: in the long run, they tend to cancel each other out. The impact of intergenerational population replacement, on the other hand, moves in one continuous direction for decades. In the long run, its cumulative effects can be substantial. This seems to be the case with the data at hand. For these nine countries as a whole, over the 24-year period from 1970 to 1994 the PDI shows a mean shift toward the Postmaterialist pole

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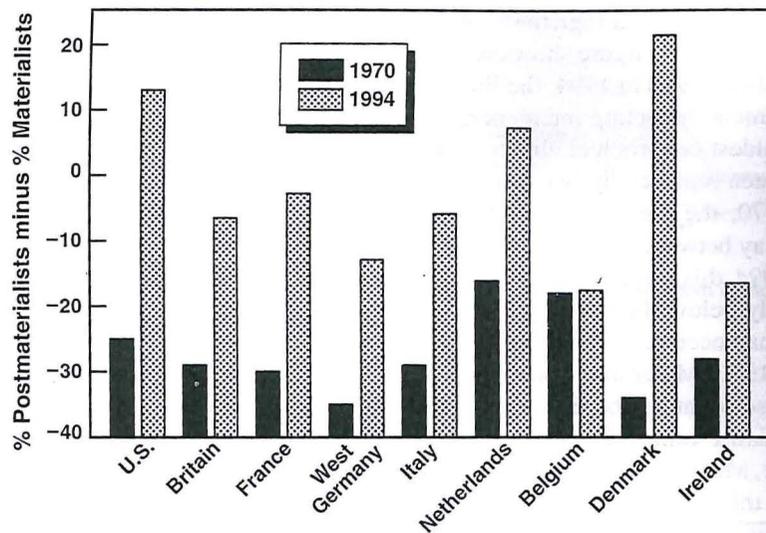


Figure 5.4. The shift toward Postmaterialist values among the publics of nine Western Societies, 1970-94. *Source:* European Community surveys, February 1970 and fall 1994; and U.S. national election surveys from 1972 and 1992.

of 23 points: this is almost exactly the amount of change that would be expected to occur solely as a result of intergenerational population replacement.

Economic conditions were *not* more favorable in 1994 than they were at the start of the series, in 1970; they were worse. The early 1990s were a period of recession, and as figure 5.2 indicates, the levels of Postmaterialism in most cohorts reached a peak about 1989 and declined during the next few years. Nevertheless, as younger, more Postmaterialist cohorts replaced older ones, the population as a whole showed a long-term shift toward Postmaterialist values in almost every country. Despite substantial short-term fluctuations, and despite the fact that the surveys in our most recent year, 1994, occurred when Western Europe was still recovering from a major recession, the predicted shift toward Postmaterialist values took place—and its magnitude was just about the size that would be predicted by an intergenerational population replacement model.

Figure 5.4 shows only the starting point and the end point of each country's time series from 1970 to 1994. In a more detailed analysis of this time series, consisting of at least 33 surveys for each nation, Inglehart and Abramson (1994) examine the trends in each of the eight countries; then, using regression analysis, they demonstrate that Britain, France, West Germany, Italy, the Netherlands, Ireland, and Denmark all show large and statistically significant long-term trends from Materialist to Postmaterialist values over this period. In the eighth case (Belgium), they find no trend. But a time series analysis controlling for the joint effects of inflation and unemployment demonstrates that

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there is a statistically significant trend toward Postmaterialism in *all eight* of the Western European countries for which a detailed time series is available over the past two decades: Belgium showed no shift toward Postmaterialism because it has suffered much higher levels of unemployment in recent years than in the 1970s, which has largely offset the effects of intergenerational population replacement. When they control for inflation and unemployment, Belgium is no longer a deviant case: it too shows a significant shift toward Postmaterialism. Controlling for inflation and unemployment largely explains the period effects: as the theory implies, high levels of inflation and unemployment encourage an emphasis on economic security, rather than on Postmaterialist values (Inglehart and Abramson, 1994). As we have seen, a substantial shift toward Postmaterialist values also took place in the United States. These data come from the six NES presidential election surveys carried out from 1972 to 1992. Six surveys do not provide a sufficient number of time points to test the trend's statistical significance, but the net effect in the United States seems to be about as large as in most Western European countries.

#### THE POSTMATERIALIST PHENOMENON: EVOLVING OVER TIME

Much of the literature on Postmaterialism deals with whether it is a deep-rooted phenomenon having a long-term impact on political behavior or simply a transient epiphenomenon. We will reexamine this issue in the light of recent evidence. If a society's basic values change mainly through intergenerational population replacement, we would expect them to change at a gradual pace. But though short-term changes may be small, close examination of their societal location can provide valuable insight into their long-term implications. Contrary to what some observers assumed (Kesselman, 1979), Postmaterialism did not dwindle away in the face of diminished economic and physical security. In most countries its numbers grew, and in many ways its political influence is greater now than it was a decade or two ago; but its character and tactics have changed significantly.

By 1970, Postmaterialists had attained numerical parity with Materialists only among the postwar generation. Furthermore, they were concentrated among the more affluent strata of this age group: among university students, they heavily outnumbered the Materialists. This helps explain the widespread popular perceptions of a generation gap that emerged in the late 1960s and early 1970s. Even among the postwar generation, Materialists were about as numerous as Postmaterialists. But in this age group's most articulate and most visible segment—the university students—there was an overwhelming preponderance of Postmaterialists. The students lived in a distinct milieu: they had highly developed communications networks with other students but were largely isolated from their nonstudent peers. The priorities prevailing in this milieu were fundamentally different from those shaping the society as a whole.

The existence of such a milieu can play an important part in the evolution

and propagation of a given set of values. Indeed, Habermas (1979) argues that the rise of Postmaterialism is not due to the different formative experiences of different generation units, but to exposure to the specific worldviews inculcated by distinct communications networks (see also Jaeggi, 1979). But this explanation seems to complement, not substitute for, the one proposed here. It helps account for the spread of values in a given milieu, but provides no explanation of *why* given generation units were disposed to accept given values in the first place, while others rejected them. It seems clear that in virtually all Western nations, the student milieu of the late 1960s *did* constitute a distinct communications network, propagating a distinctive viewpoint. Given these circumstances, it is not surprising that the student elite saw themselves as part of a counterculture that was engaged in an irreconcilable clash with the culture of an older generation: From their viewpoint, the dictum "Don't trust anyone over 30" seemed plausible. Our hypotheses imply that as time went by, the Postmaterialists would become older and more evenly distributed across the population. Hence, the plausibility of a monolithic generation gap would fade away. But in 1970, conditions were optimal to sustain belief in a generation gap, with all youth on one side and all older people on the other.

One of the most important changes derives from the simple fact that, today, Postmaterialists are older than they were when they first emerged as a major political factor in the 1960s. Initially manifested mainly through student protest movements, their most important impact now comes through the activities of elites. For the students have grown older, and Postmaterialism has penetrated deeply into the ranks of professionals, civil servants, managers, and politicians (Inglehart, 1990: ch. 9). It seems to be a major factor in the rise of a "new class" in Western society—a stratum of highly educated and well-paid young technocrats who take an adversarial stance toward their society (Ladd, 1978; Gouldner, 1979; Lipset, 1979). The debate between those giving top priority to economic growth, versus those who emphasize environmentalism and the quality of life, reflects persisting value cleavages.

The Postmaterialists among the protest generation of the 1960s were much more likely to enter academic life, the mass media, and nonprofit foundations than were Materialists: these occupations provided relatively great opportunities for self-expression. By contrast, the Materialists were more likely to go into career paths that maximized one's earning power and financial security, such as business, engineering, and technical fields.

One consequence has been that, as they aged and moved into adult careers, Postmaterialists have become the dominant force in most universities. In the 1960s, they were student protesters; by the 1990s, they were the department chairs and deans. The emergence of the phenomenon of Political Correctness reflects this transition in the dominant culture within universities: values that were controversial in the 1960s had become the values of the establishment in the 1990s. Although some of these values were still controversial in the society as a whole, there was pressure to conform to them within the universities.

Although the highly industrialized democracies of Western Europe and North America historically led the shift toward Postmaterialist values, our theory implies that this process should also occur in other nations that develop high levels of prosperity and advanced social welfare networks. Consequently, it should be at work in East Asia (parts of which have now attained Western levels of prosperity) and even in Eastern Europe. The value change theory implies that we should find a higher proportion of Postmaterialists among the younger cohorts than among the old, in *any* society that has had sufficient economic growth during the past four or five decades so that the younger cohorts experienced substantially greater economic security during their preadult years than did those who are now in their fifties, sixties, or seventies.

At first glance, it might seem unlikely that intergenerational value change would be at work in Eastern European countries, since they are far less prosperous than Western Europe and the United States, and their economies are currently in decline. But a country's absolute level of wealth is not the crucial variable: the value change thesis implies (1) that countries with high *levels* of prosperity should have relatively high *levels* of Postmaterialist values, and (2) that countries that have experienced relatively high rates of economic *growth* should show relatively large *differences* between the values of young and old, reflecting the fact that the formative conditions of the respective generations have undergone relatively large amounts of *change*.

Thus, we would indeed expect Russia and other Eastern European countries to show relatively low absolute *levels* of Postmaterialism. But they should also show substantial intergenerational *change* in these values, reflecting the massive differences between the conditions that shaped the formative years of those who grew up during World War I, the Great Depression, and World War II and those who grew up subsequently. The crucial factor governing the emergence of Postmaterialist values is whether one experienced a sense of economic and physical security during one's formative years. Accordingly, we would expect Postmaterialist values to have developed during the past 50 years in Eastern Europe and the former Soviet Union. Though their GNP per capita lags behind that of Western countries, it is far above the subsistence level (and several times as high as that of such countries as China, Nigeria, or India). Throughout the ex-socialist world, the younger birth cohorts have generally experienced greater security during their formative years than did older ones.

In the Russian case, for example, those born in 1920 experienced the civil war and the mass starvation linked with forced collectivization during the 1920s, followed by the terror and Stalinist purges of the 1930s, and mass starvation and the loss of 27 million lives in the Soviet Union during World War II. The 1950s and 1960s, by contrast, were an era of recovery and rapid economic growth at rates that exceeded those of most Western countries. This was the era that led Khrushchev to boast "We will bury you" economically—and at the time, many Western observers thought it a plausible claim. Recent years

have been calamitous, creating a period effect that tends to drive all of the Russian cohorts downward toward the Materialist pole. But the formative years of the younger cohorts were far more secure than those of the older cohorts, and if the intergenerational *differences* reflect differences in preadult experience rather than current conditions, we would indeed expect to find evidence of intergenerational change in Eastern Europe.

From 1945 to about 1980, most Eastern European countries had impressive rates of economic growth; in the early decades, it seemed likely that they would catch up with and surpass the West. Since 1980, their economies have decayed, but there is no question that the average Pole or Russian experienced far greater economic and physical *security* during the era from 1950 to 1980 than during the period from 1915 to 1945.

The emergence of Postmaterialist values in Eastern Europe might be reinforced by the fact that the welfare systems of socialist states partially compensated for their relatively low levels of prosperity. The key factor in value change is not one's absolute income, but the degree of *security* experienced during one's formative years. The communist regimes of Eastern Europe provided a relatively secure existence during most of the postwar era: job security was very high, rents were low, basic foods were provided at subsidized prices, and medical care and education were free. The quality of what one got was poor, but one was sure of getting it.

East Asia contrasts with Eastern Europe. Fifty years ago, it was far less developed than Eastern Europe; as recently as 1950, Japan's annual per capita income was only a fraction of that in such Eastern European countries as Czechoslovakia, Poland, or Hungary—and the Chinese and South Korean per capita incomes were a fraction of Japan's. But in recent decades, East Asia (including China, since the pragmatists took power in 1976) has shown the most rapid economic growth rates in the world. By 1990, per capita income in South Korea and Taiwan had reached Eastern European levels and Japan was one of the richest countries in the world. Even China was experiencing annual growth rates of around 10 percent, enough to double GNP every seven years.

Thus, the older East Asian birth cohorts grew up under conditions of extreme scarcity, while the youngest ones have experienced relatively secure circumstances throughout their formative years. Consequently, we would expect these countries to show low proportions of Postmaterialists overall, but relatively steep rates of intergenerational change. The Eastern European countries, by comparison, started out at much higher levels but have grown less rapidly: we would expect to find higher proportions of Postmaterialists than in East Asia, but less intergenerational change. Figure 5.5 shows the value differences across the respective birth cohorts, using 1990 World Values Survey data from countries in Eastern Europe and East Asia, together with the European Union and the United States, using the 12-item values indicator.

As figure 5.5 illustrates, the younger birth cohorts do, indeed, show considerably higher proportions of Postmaterialists than the older cohorts in most of these societies. The intergenerational shift from Materialist to Postmaterialist

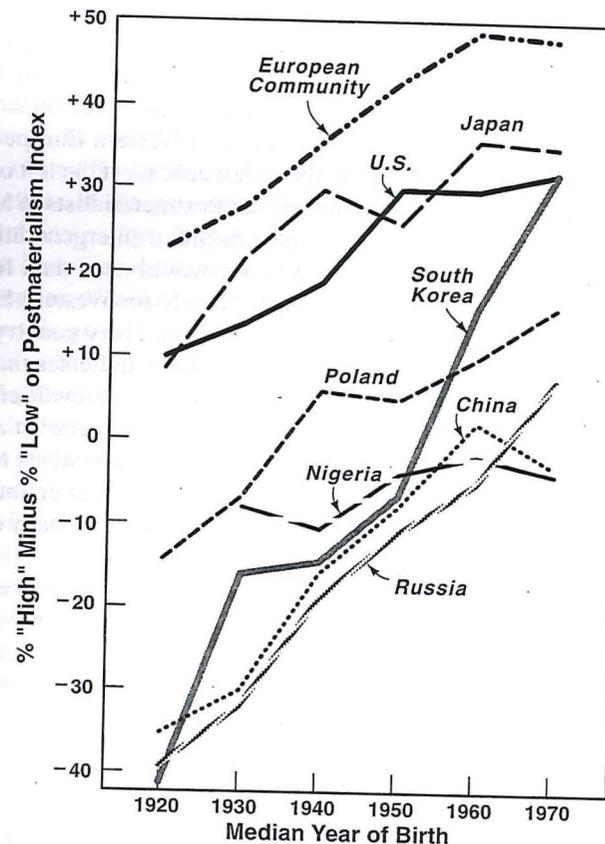


Figure 5.5. Values by birth cohort in Western democracies, Eastern Europe, East Asia, and Africa. Source: 1990-93 World Values Survey. Note: Respondents are classified as "high" on the 12-item Materialist/Postmaterialist values index used here if they gave high priority to at least three of the five Postmaterialist goals (ranking them among the two most important in each group of four goals). They are classified as "low" if they gave high priority to none of the five Postmaterialist goals.

values is not limited to Western democracies: it is found across advanced industrial societies with a wide variety of political and economic institutions, and a wide variety of cultural traditions. Although the richer countries have much higher absolute proportions of Postmaterialists than the poorer ones, we also find a steep slope reflecting intergenerational value differences in poor countries that have experienced a rapid increase in prevailing standards of living during the past several decades.

Results from several European Union countries have already been examined in detail and are combined into a single line on figure 5.5 to simplify the picture. Overall, the European Union shows the highest proportion of Postmaterialists on this graph, with the United States and Japan also ranking high. Even

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the oldest birth cohorts in these advanced industrial societies rank higher than even the youngest cohorts in most other countries. But an upward slope; reflecting a rising proportion of Postmaterialists to Materialists as we move from old to young, is also found in Eastern Europe and East Asia.

In virtually every case, from North America to Western Europe to Eastern Europe to East Asia, as we move from the oldest cohorts at the left of the graph to the youngest cohorts at the right, the ratio of Postmaterialists to Materialists rises. This is exactly what we would expect to find if intergenerational value change were occurring. To prove that it is, we would need data from a long time series, and thus far such data are available only for Western Europe and, to a lesser extent, the United States and Japan. But in every country for which substantial time series data are available, the evidence indicates that these age differences reflect intergenerational change, rather than life-cycle effects: there is no tendency for given birth cohorts to become more Materialist as they age. Furthermore, as this finding implies, the ratio of Postmaterialists to Materialists has gradually risen over time. We believe that the other countries shown in figure 5.5 are on a trajectory similar to that on which Western nations and Japan have been moving in recent decades.

Figure 5.5 presents a great deal of information, reflecting the twentieth-century history of each nation; it could be discussed at considerable length. The data reveal huge cross-national differences. Thus, there are far more Postmaterialists in the United States and the European Union than in South Korea, but the slope rises steeply in South Korea, suggesting that a very rapid process of intergenerational change is taking place there. During the past quarter century, only one country in the world (Singapore) has had a higher rate of economic growth than South Korea, which shows the steepest slope in the graph. Among its oldest birth cohort there are literally *no* Postmaterialists; 70 percent fall into the pure Materialist category and 30 percent are mixed types (producing an index of -40 on the vertical axis). Among its youngest cohort, Materialists outnumber Postmaterialists by only 10 points.

If Postmaterialist values simply reflected current conditions, one would not expect to find a shift from Materialist to Postmaterialist values in such countries as Russia and Poland, which experienced economic stagnation during the decade preceding these surveys and by 1990 were in a state of economic collapse. But the theory postulates a long-term process of intergenerational change based on the differences experienced during a given cohort's preadult years. From this perspective, we *would* expect to find intergenerational value differences in Eastern Europe, for it is clear that the formative experiences of the cohorts born in the 1950s, the 1960s, and the 1970s were characterized by far more secure circumstances than is true of those who experienced the traumatic upheavals of the 1920s, 1930s, or 1940s. And we do find evidence of intergenerational change. As figure 5.5 demonstrates, the Russian results show an upward slope. Although the Russian cohort line starts and ends at a level far below that of the richer countries, intergenerational differences in Russia are even steeper than those found in Western Europe, the United States, or Japan.

China shows an equally steep slope, reflecting sharp intergenerational differences that may have contributed to the spring 1989 clash between young intellectuals and the aging leadership still in control of the army. These intergenerational differences reflect the massive differences between the formative experiences of the older generation in China, who lived through an era of mass starvation and civil war that went on almost continuously from the 1920s to 1949, and those of the younger cohorts, brought up in conditions of relative stability and prosperity—broken by the severe but relatively brief upheavals of the Great Leap Forward and the Cultural Revolution in the late 1960s. China has had a series of wild swings since 1949, including periods of extremely rapid economic growth and periods of severe economic decline. As recently as 1959–60, millions of people starved to death; but this was a relatively brief period, compared with the decades of slaughter and starvation that dominated the warlord period, the civil war, and World War II. By these standards, the communist victory in 1949 brought a distinct improvement. And for the past two decades, China has experienced exceptional economic growth, with an average rate higher than Japan's. Our data reflect these facts: China starts out with an extremely low proportion of Postmaterialists among its oldest cohorts, but then shows a steep upward slope (though not as steep as that found in South Korea) as we move to its younger cohorts. Although its absolute level of Postmaterialism remains far below that of most Western countries, China seems to be on a similar trajectory, and (as we will argue in the following chapter) further economic development should bring expanding mass support for democratization.

The European Union countries show a steeper rate of change than does the United States, reflecting their higher growth rates since World War II. While among the older Western European cohorts, Materialists substantially outnumber Postmaterialists (and thus fall well below the zero level on this graph), all three of the cohorts born after 1945 rise above this threshold—indeed, the two youngest European Union cohorts rank well above their American counterparts.

The value differences across age groups are greater in Western Europe than in the United States—which implies that Western Europe is manifesting a more rapid rate of value change over time. This has indeed been the case. In 1972, when the American public was first surveyed, it showed a considerably higher proportion of Postmaterialists than did the combined six European Union countries for which data were then available; but subsequently, Western Europe has caught up. Nevertheless, the United States has shown a significant movement in the predicted direction.

For the most part, the findings from Japan fit theoretical expectations. Its overall proportion of Postmaterialists ranks just after the United States and Western Europe and well above most of the other countries in figure 5.5, as one would expect of a country that has now attained a high per capita income. Moreover, in Japan as in virtually all advanced industrial societies, Postmaterialist values are more widespread among the younger cohorts than among the

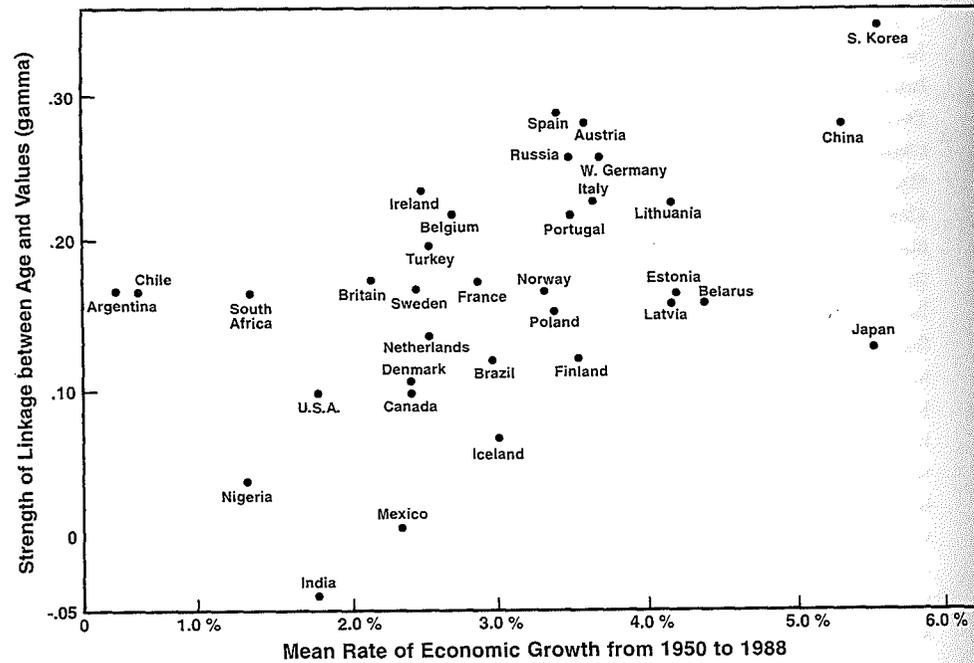


Figure 5.6. Societies with fast-growing economies have relatively large differences between the values of young and old.  
 $r = .52, p < .001$ . Source: 1990–93 World Values Survey. Based on 12-item Materialist/Postmaterialist values index. Note: Data on economic growth were not available for several Eastern European countries.

older ones. Furthermore, the ratio of Postmaterialists to Materialists has gradually risen over time, in Japan as in the United States and Western Europe. In 1972, the first Japanese survey to measure these values found 43 percent Materialists and only 5 percent Postmaterialists—a preponderance of more than 8 to 1 (Watanuki, 1977). In the 1981 World Values Survey, the figures had shifted to 37 and 6 percent, respectively, a ratio of 6 to 1. And the 1990 World Values Survey found 29 percent Materialists and 10 percent Postmaterialists: the ratio had fallen to less than 3 to 1. In these respects, the Japanese findings confirm the theory's predictions. One finding is surprising, however: as one of the world's most rapidly growing economies, we would expect to find a steeper slope for Japan than for most other countries, but we do not.

Figure 5.5 would be unreadable if it included the results from all 43 societies for which data are available, but we should note that two important countries do *not* show any indication of intergenerational change: India and Nigeria. The data for Nigeria are plotted on figure 5.5. The line is almost horizontal, reflecting virtually no intergenerational change. The Indian data are not shown here, but as figure 5.6 demonstrates, the relationship between values and age is even weaker there, with younger groups being slightly *less* Postmaterialist

than the old. A combination of relatively slow industrialization and rapid population growth during most of the period from 1945 to 1990 kept India from developing at anything approaching the East Asian rate. Nigeria has had virtually no increase in GNP per capita since 1965, and its public also shows a flat relationship between age and values. These findings indicate that intergenerational value change is not inherent in the human condition: as our theory implies, we find it in those countries where the formative years of the younger cohorts were shaped by significantly higher levels of economic security than those of the older cohorts. In countries that have *not* experienced economic development, intergenerational value differences are absent.

#### ECONOMIC GROWTH AND VALUE CHANGE

The value change thesis implies that large amounts of intergenerational *change* will be found in countries that have experienced relatively high rates of economic *growth*. Figure 5.6 tests this hypothesis against the data from all of the societies for which we have data, and not just the selected examples just discussed. To present the findings from more than 40 societies on one graph, figure 5.6 condenses the relationship between age and values for each country into a single coefficient. As this figure demonstrates, the selected examples shown in figure 5.5 reflect the overall pattern: intergenerational value differences tend to be largest in countries that have experienced the greatest amounts of economic growth during the past 40 years. Accordingly, the correlation between age and values is strongest in such countries as South Korea and China, and weak or even negative in such countries as Nigeria and India—which have not only experienced much lower rates of economic growth than China or South Korea, but which also have much more unequal income distributions, so that substantial proportions of the population live at the edge of starvation.

Note that the intergenerational value differences are also relatively weak in the United States: though it has a relatively high absolute *level* of Postmaterialism, its rate of intergenerational *change* is relatively small. Although the United States has been one of the world's richest countries since the nineteenth century, it has not experienced dramatic changes between the formative experiences of younger and older cohorts like those found in Europe and East Asia. The United States has been a relatively rich country throughout the lifetime of everyone in the sample and was not devastated by World War II—but the United States has had relatively slow growth in recent decades.

As usual, we find deviant cases. Argentina and Chile are “overachievers,” showing larger intergenerational differences than their economic growth rates would predict; and, as we have seen, Japan is an “underachiever,” showing smaller intergenerational value differences than its historic economic growth rate would predict. But overall, the pattern fits our theoretical expectations. High rates of economic growth tend to go with large intergenerational value differences ( $r = .41$ , statistically significant at the .01 level).

ECONOMIC SECURITY AND VALUE CHANGE:  
NEW EVIDENCE FROM 40 SOCIETIES

The value change thesis also implies that high *levels* of prosperity should be conducive to high *levels* of Postmaterialism, so rich countries should tend to have more Postmaterialists than poor ones.

Disputing this thesis, Trump (1991) and Duch and Taylor (1993), drawing on data from only three societies, have claimed that Postmaterialist values are *not* more likely to be found in prosperous countries or regions than in poor ones. The World Values surveys provide strong evidence that they *are*. These surveys cover an unprecedentedly broad range of the economic spectrum, with data from low-income nations, middle-income countries, and advanced industrial democracies having per capita incomes 60 or 70 times as high as those of the poorest countries.

Our theory implies that the shift from Materialist to Postmaterialist priorities is potentially universal: it should occur in any country that moves from conditions of economic insecurity to relative security (though during a transitional period, older generations will continue to reflect the conditions that characterized their preadult experiences). This has clear implications: people living in rich countries generally experience more economic security than those in poor nations, where the pie is not only smaller but also tends to be less evenly distributed, and many people live on the edge of starvation. Accordingly, we would expect high levels of GNP/capita to be linked with relatively high levels of Postmaterialist values.

Although this implication is straightforward, until recently it was not possible to test it adequately because most of the surveys exploring values (like most surveys in general) have been carried out in relatively developed societies. Using the 1990–91 World Values Surveys we can now test this hypothesis across the full range of economic development. The results confirm that hypothesis, as figure 5.7 demonstrates (using the 12-item values index). Rich countries tend to have much higher proportions of Postmaterialists than poorer countries. Although some rich countries such as Norway and the United States are “underachievers” and some poorer countries such as Mexico and Turkey are “overachievers,” the overall correlation is remarkably strong:  $r = .68$ , significant at the .0001 level.

Diez Nicolas (1994) demonstrates that this relationship also holds true at the regional level, within a given nation. He has included the Materialist/Postmaterialist values battery in *monthly* national surveys of the Spanish public since 1988, obtaining nearly 55,000 interviews in the period 1989–92. Cumulating large numbers of interviews from each region enables him to perform statistically reliable analyses of the relationship between values and economic security at the regional level, in a country that has large amounts of regional variation. This provides a much more reliable base on which to test this hypothesis than the 741 secondary school students on which Trump (1991) relied for ev-

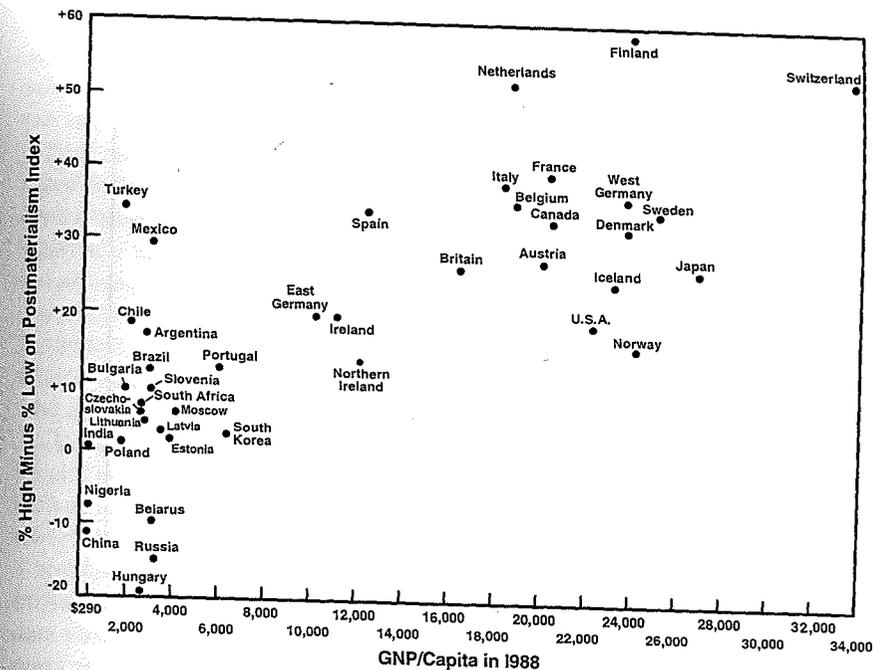


Figure 5.7. Economic development and Materialist/Postmaterialist values.  $r = .68$ ,  $p < .0001$ . Source: 1990–93 World Values Survey. GNP/capita from World Bank, *World Development Report, 1993*. Note: Respondents are classified as “high” on the 12-item Materialist/Postmaterialist values index used here if they gave high priority to at least three of the five Postmaterialist goals (ranking them among the two most important in each group of four goals). They are classified as “low” if they gave high priority to none of the five Postmaterialist goals.

idence that regional economic variations in the United States are unrelated to Postmaterialist values.

Diez Nicolas finds that the relative level of Postmaterialism varies a good deal from region to region and is quite stable from one year to the next. The wealthiest regions (the Basque country and greater Madrid) consistently have the highest proportions of Postmaterialists; and the poorest regions (Andalusia, Extremadura, and Castille-La Mancha) show the lowest proportions of Postmaterialists in virtually every year. As figure 5.8 shows, this relationship is very strong, and it shows a particularly good fit with a given region’s level of economic development 25 years prior to the survey, during the median respondent’s preadult years ( $r = .83$ ). Here again, the evidence indicates that economic security has a powerful linkage with the emergence of Postmaterialist values.

Duch and Taylor (1993) and Davis (1996) suggest that the value shift we observe is due simply to rising levels of education. Do richer countries and richer

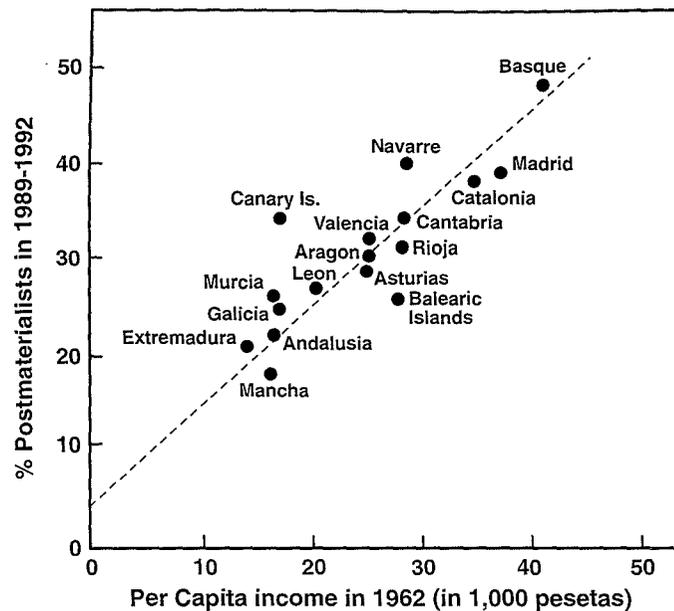


Figure 5.8. Postmaterialist values by economic level of Spanish regions one generation before surveys.

$N = 54,557$ ,  $r = .83$ . Source: Juan Diez Nicolas, "Postmaterialismo y Desarrollo Economico en Espana," paper presented at World Conference on Social Values, Madrid, September 27–October 1, 1993.

regions have larger numbers of Postmaterialists simply because their publics are better educated?

As our theory implies, we do indeed find that the better educated in every country are likelier to have Postmaterialist values than the less educated. In large part, this reflects the fact that one's educational level is an excellent indicator of how economically secure one was during one's *formative* years. For the great majority of people, one's education is completed in their preadult years; and how much education they get is closely related to how well-off their parents were during that period: economically secure families give their children more years of education than economically insecure ones. We would also expect the upper-income and occupational groups to be more Postmaterialist than the lower ones, but one's educational level is a considerably better indicator of security during one's formative years than is one's *current* income or occupation. Education gets closer to the key causal factor, which is *formative* security. One's income or occupation reflects one's *current* economic level. But one's education not only taps current prosperity but is also an excellent indicator of how prosperous one's *parents* were.

An alternative explanation would focus on some form of indoctrination: the better educated are more likely to have Postmaterialist values because their

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teachers teach them these values. Some version of this seems to be what Duch and Taylor, and Davis have in mind—though this interpretation fails to explain why (as our data demonstrate) those who received a higher education in the era before World War II are *not* predominantly Postmaterialists.

Still another possible explanation for why we would expect the better educated to be more Postmaterialistic lies in the fact that the better educated generally have better jobs and higher incomes than the less educated: they have relatively high levels of *current* economic security, which, the theory implies, should also be conducive to Postmaterialist values. We don't rule out either indoctrination or current prosperity as possible contributing factors: our theory holds that security during one's formative years is conducive to the emergence of Postmaterialist values, and not that it is the *only* influence on these values. The question is "What is the relative importance of these factors?"

Our theory emphasizes the role of formative security. But one's educational level is linked with current prosperity, exposure to indoctrination, and how well-off one's family was during a person's formative years. In order to separate these mingled influences, we will perform a multiple regression analysis. But we have a problem in doing so: this approach will almost inevitably underestimate the impact of formative experiences. The reason why it will do so is simple: recall data virtually always contain a good deal more measurement error than do reports of one's own current characteristics. Most respondents can give pretty accurate information concerning their own income, occupation, or educational level at the time of the survey. But their report of their parents' characteristics when they were growing up almost inevitably is contaminated with a good deal of measurement error. First, there is the simple fact that they are not reporting their own characteristics now—they are reporting someone else's characteristics when they were growing up—which may have been 30 or 40 years ago. These problems are especially acute with recall data concerning one's parents' *income*: this is something that may have varied a good deal from one year to the next and, quite often, was something that the parents did not discuss with their children. We ask the reader, "What was your parents' income level when you were growing up?" Hardly anyone can give a precise figure—but most people can provide a pretty accurate account of their *own* income at the time of the survey. Consequently, recall data on parental income will almost certainly explain less of the variance in one's attitudes than data on one's own current income: its explanatory power is weakened by a great deal of measurement error. Recall data on one's parents' occupation has some of these same problems—it deals with something that may be quite distant in time, may have varied, and may not have been clearly conveyed to the child; but most people can give at least a fairly accurate idea of what their parents' occupation was when they were growing up. The same is true of one's parents' educational level: it suffers from the measurement problems inherent in recall data about someone else's characteristics, possibly a long time ago; but one's parents' educational level was a fixed characteristic in most cases, and one can get a more accurate measurement of it than of parental income during one's formative years.

In short, it is considerably more difficult to get an accurate measure of formative security" than it is to get one of one's current economic characteristics—which tends to weaken the relative explanatory power of formative security in any regression analysis that runs one against the other. Nevertheless, let us carry out the test, using the best measure of formative security that we can get. For this purpose, the best data we know of are those from the *Political Action* surveys (Barnes et al., 1979) carried out in the 1970s. In order to obtain a relatively good indicator of formative security, we construct a multi-item index based on the reported educational level of the respondent's mother and father, plus the reported occupation of the respondent's father (most respondents' mothers didn't have one, when they were growing up). Table 5.1 shows the results of multiple regression through the origin, in each of the six countries for which these data are available.

As table 5.1 demonstrates, our theory is clearly upheld in every one of the six societies. For our indicator of formative security not only reduces the correlation between the respondent's educational level and his or her values: in all six societies, our indicator of formative security, based on recall data concerning the respondent's parents' educational and occupational level when the respondent was growing up, actually explains *more* of the variance in his or her values than does the respondent's own educational level.

This is a truly remarkable set of findings. Normally, one would expect an individual's own current characteristics to provide a far stronger explanation of his or her own values or attitudes than the status of some other person—particularly since our measure of parental SES is based on recall data reporting the status of another person at a time that may be several decades in the past. But despite all the problems inherent in recall data, we find that the respondent's *parents'* SES consistently provides an even stronger explanation of the respondent's values, than does his or her *own* educational level.

These two variables, by themselves, explain most of the variance in Materialist/Postmaterialist values in every country; across the six societies, they account for 79 percent of the variance. And the most important factor is Formative Security, not the respondent's education. This holds true only rather narrowly in Italy, where (as the respective beta coefficients demonstrate) Formative Security accounts for slightly more of the variance in values than does the respondent's educational level. In Germany, the Netherlands, Austria, the United States, and Finland, the predominance of Formative Security is one-sided; and for the six nations as a whole, the beta coefficient for Formative Security is .635—more than twice the size of the coefficient for respondent's educational level, which is .266.

One could scarcely hope for a clearer demonstration of the fact that these values are *not* simply the result of indoctrination in the schools, or a reflection of the fact that the better educated tend to have higher incomes. The impact of one's *formative* experiences seems to have a considerably greater impact on Materialist/Postmaterialist values than the individual's educational level. For-

TABLE 5.1  
Dependent Variable  
Independent Variables

VAR0340  
INDEX1

Materialist/Postmaterialist Values: 4 pt  
Formative Security, Computed According to the Following Formula:  
INDEX1 = [2 × (VAR0162/25) + VAR0168 + VAR0172]/4,  
where VAR0162—Father's Occupation: Standard Prestige Scores  
VAR0168—Father's Education Type  
VAR0172—Mother's Education Type  
Respondent's Educational Level

Number	Country	Number of Cases	Number of Valid Cases	Simple Regression			Multivariate Analysis			R Squ
				Beta Coefficients			Beta Coefficients			
				(for Respondent's Educational Level)	Formative Security	Educational Level	Formative Security	Educational Level	Educational Level	
1	Germany	2,307	1,841	.868 (.040)	.724 (.040)	.427 (.040)	.566	.338	.794	
2	Netherlands	1,201	993	.871 (.059)	1.171 (.059)	.485 (.062)	.665	.260	.828	
3	Austria	1,585	1,205	.872 (.054)	.956 (.054)	.411 (.051)	.628	.286	.812	
4	United States	1,719	1,246	.857 (.056)	.788 (.056)	.328 (.045)	.590	.305	.783	
5	Italy	1,779	1,385	.876 (.046)	.742 (.046)	.601 (.040)	.475	.442	.808	
6	Finland <sup>1</sup>	1,224	1,005	.870 (.065)	1.113 (.065)	.443 (.062)	.649	.268	.810	
	All Countries	12,558	7,675	.858 (.021)	.952 (.021)	.365 (.020)	.635	.266	.785	

Notes: Standard errors in parentheses. All regressions are significant at 1% level (based upon regression through the origin). No data available for VAR0172 (Mother's Education Type in the British and Swiss surveys).  
Source: "Political Action—An Eight Nation Study," 1979.

mative Security seems to play a key role in the emergence of Postmaterialist values.

#### CHANGES IN THE WORLD VALUES SURVEY, 1981-1990

Data from a long time series would be needed to demonstrate directly that economic development tends to produce an intergenerational shift toward Postmaterialist values globally, and such data are not available for most of these countries. Although the time series evidence that is available has a remarkably good fit with the predictions of the Postmaterialist value shift thesis, most of it comes from nine Western nations. We can supplement it with a modest amount of additional time series data from the World Values surveys: for 21 of these countries, data from the four-item values battery is available from both the 1981 and the 1990-91 surveys.

Table 5.2 shows the distribution of Materialist and Postmaterialist values in 1981 and 1990 for 21 countries. We also have World Values survey data from these time points for one additional country, Denmark, but we do not present them here. The 1981 Danish sample seems to have been unrepresentative: its results are far out of line with the results from other countries, and also with the results from other Danish surveys carried out at the same time. Consequently we do not use this survey as a basis of cross-time comparisons in this book (details concerning the 1981 Danish sample are presented in Appendix 2).

As table 5.2 shows, 18 out of these 21 countries show a shift in the predicted direction, from 1981 to 1990-91. South Korea shows no net shift, which is surprising. Only two countries (Iceland and South Africa) show shifts in the opposite direction from the one predicted. We have no explanation for why Iceland is a deviant case, but it is not surprising that South Africa shows a shift toward Materialist goals. A society's values at any given time point reflect a combination of long-term trends and current period effects—and South Africa experienced a period of severe insecurity during the 1980s. Its economy, suffering from international boycott and low commodity prices, experienced economic stagnation throughout the 1980s. Moreover, widespread violence and political instability gave rise to growing concern for physical security among both blacks and whites. Powerful period effects were working to produce a sense of insecurity, rather than the security that contributes to Postmaterialist values.

A generalized shift toward Postmodern values seems to be taking place. With only two time points available, the World Values surveys database does not enable one to distinguish period effects from long-term trends, but it does provide data from a wide range of nations. Here again, the findings show a shift from Materialist to Postmaterialist values, complementing the findings from the much more detailed time series available from eight Western European countries.

TABLE 5.2

The Shift Toward Postmaterialist Values: Results from the 1981 vs. 1990 World Values Surveys (Percentage Postmaterialist Minus Percentage Materialist)

	1981	1990	Net Shift
Finland	21	23	+2
Netherlands	-2	26	+28
Canada	-6	14	+20
Iceland	-10	-14	-4
Sweden	-10	9	+19
W. Germany	-11	14	+25
Britain	-13	0	+13
France	-14	4	+18
Belgium	-16	2	+18
S. Africa	-16	-33	-17
Mexico	-19	-14	+5
Ireland	-20	-4	+16
Argentina	-20	-6	+14
Norway	-21	-19	+2
U.S.*	-24	6	+30
Japan	-32	-19	+13
S. Korea	-34	-34	0
Italy	-39	7	+46
Spain	-41	-6	+35
N. Ireland	-45	-7	+38
Hungary	-50	-41	+9

\*The values question was not asked in the U.S. in the 1981 survey; results are from the 1980 NES survey.

Source: 1981 and 1990 World Values surveys.

#### CONCLUSIONS

The value change thesis predicts a gradual intergenerational shift from Materialist values toward Postmaterialist values. During the years from 1970 to 1994, a statistically significant shift toward Postmaterialist values took place in all eight Western European countries for which a detailed time series is available; similar shifts seem to have occurred in the United States, Japan, and many other countries around the world.

The trend toward Postmaterialism is not automatic. It does not seem to be taking place in Nigeria or India. Although generational replacement tends to push Postmaterialism upward throughout advanced industrial society, such economic factors as inflation and unemployment also affect value change. The consequences of the breakup of the Soviet Union have been massive, and current conditions there are harrowing. In settings of extreme uncertainty such as the former Soviet Union, with falling living standards and declining life ex-

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pectancy, we would *not* expect to find a movement toward Postmaterialist values. On the contrary, our theory implies that current conditions in Russia or Belarus would bring increasing emphasis on Materialist values.

The data we have examined make two points clear: first, the shift from Materialist to Postmaterialist values is not a uniquely Western phenomenon. It is found in societies with widely different institutions and cultural traditions. The rise of Postmaterialist values is closely linked with prosperity and seems to occur wherever a society has experienced enough economic growth in recent decades so that the younger birth cohorts have experienced significantly greater economic security during their formative years than did the older cohorts. In societies that are not yet well launched on industrialization, on the other hand, there are few Postmaterialists and little difference between the values of young and old: intergenerational value differences reflect a society's rate of economic growth. Economic growth, of course, is only one factor that contributes to security or insecurity. Other events such as war, domestic upheaval, and ethnic conflict can also have a major impact, but they tend to be situation-specific (and are less readily quantified), making them more difficult to analyze empirically.

Second, where value change has occurred, intergenerational differences are remarkably robust. In Western Europe, clear and sizable differences between the values of younger and older birth cohorts persisted through the recessions of the mid-1970s and the early 1980s. More remarkably still, in Russia and Eastern Europe sizable intergenerational value differences have persisted through the collapse of the economic and political systems in recent years. These values show predictable period effects in response to current economic conditions. But the Postmaterialist value shift does not simply reflect current conditions. It also has a long-term component that seems to reflect the distinctive formative circumstances that given birth cohorts experienced as much as 40 or 50 years ago.

As we have seen, cultural change has a rational component: it tends to follow the principle of diminishing marginal utility. But the enduring intergenerational differences found here undermine any simplistic version of rational choice theory that would seek to explain behavior as a response to one's immediate situation, unshaped by internal cultural differences. For we find persisting generational differences that seem to reflect the enduring legacy of the distinctive formative experiences of given generations. At any point in time, the respective birth cohorts in a given society are in the same situation as their elders but respond to it in fundamentally different ways because they evaluate it by different values. These different responses to the same situation do not simply reflect that fact that the respective cohorts are of different ages, for their distinctive values continue to characterize given cohorts even after they have aged over many years.

Inglehart (1990) found that orientations concerning a wide variety of domains, from politics to religion, to sexual norms to childrearing values, were correlated with Materialist/Postmaterialist values. Evidence presented in chap-

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dergoing an intergenerational value shift, similar to the shift from Materialist toward Postmaterialist values. Thus, the detailed evidence now available about the Postmaterialist shift may help us understand the far broader cultural shift from survival values to Postmodern values.