

Veröffentlichung der Abteilung **Institutionen und sozialer Wandel** des Forschungsschwerpunkts Sozialer Wandel, Institutionen und Vermittlungsprozesse des Wissenschaftszentrums Berlin für Sozialforschung

FS III 99-202

**Analyzing Democratic Change and Stability:  
A Human Development Theory of Democracy**

Christian Welzel  
and  
Ronald Inglehart

Berlin, May 1999

Wissenschaftszentrum Berlin für Sozialforschung gGmbH (WZB)  
Reichpietschufer 50, D-10785 Berlin,  
Telefon (030) 25 49 1-0

*Zitierweise:*

Welzel, Christian, and Ronald Inglehart, 1999:

Analyzing Democratic Change and Stability: A Human Development Theory of Democracy.

Discussion Paper FS III 99-202.

Wissenschaftszentrum Berlin für Sozialforschung (WZB).

## **Zusammenfassung**

Dieser Beitrag stellt eine Theorie über die endogenen Faktoren vor, welche die Einrichtung und Bewahrung demokratischer Institutionen in Gesellschaften rund um die Welt begünstigt haben. Unsere Theorie fokussiert auf „Humanentwicklung“ als einen Hauptfaktor historischen Wandels, dessen zentrale Tendenz die Erweiterung der Optionsvielfalt menschlichen Handelns in der Gesellschaft ist. Demokratische Institutionen stellen eine von drei essentiellen Komponenten der Humanentwicklung dar, während die anderen beiden Komponenten in (1) materiellen und kognitiven Humanressourcen sowie in (2) einer Kultur mit stark ausgeprägten „Freiheitsansprüchen“ bestehen. Diese drei Komponenten der Humanentwicklung sind sequentiell miteinander verbunden: Zunächst fördert das Wachstum der Humanressourcen eine Kultur steigender Freiheitsansprüche, von denen sodann ein zunehmender Druck zur Einrichtung und Bewahrung demokratischer Institutionen ausgeht. Wir prüfen dieses Modell empirisch gegen alternative Möglichkeiten. Wir verwenden dazu Umfragedaten, ökonomische Daten und Demokratie-*ratings* für 42 Gesellschaften, die während der „Dritten Welle“ der Demokratisierung sehr unterschiedliche Grade institutionellen Wandels durchlaufen haben.

## **Abstract**

This paper presents a theoretical model designed to analyze the factors that have made societies around the world increasingly likely to adopt and retain democratic institutions. We argue that “human development” is a major dimension of historical change, in which the central theme is the broadening of human choice. Democratic institutions are one of three essential components of human development, the other components being (1) physical and cognitive human resources and (2) a culture that gives high priority to “liberty aspirations.” These three components of human development are related to each other sequentially: first, the growth of human resources favors a culture of rising liberty aspirations; and then growing liberty aspirations produce increasing pressures to establish and preserve democracy, which institutionalizes freedom. We test this model empirically against rival possibilities, using survey data, economic data and democracy ratings from 42 societies that behaved in very different ways during the “Third Wave” of democratization.



## **Content**

Introduction	1
1. Theory	4
1.1 The Basic Modernization Model	4
1.2 The Threefold Structure of Human Development	6
2. Analyses	10
2.1 The Impact of Human Resources on Liberty Aspirations	10
2.2 The Impact of Liberty Aspirations on Democracy	17
Conclusion	25
References	27
Appendix	33



*Christian Welzel and Ronald Inglehart*

## **Analyzing Democratic Change and Stability: A Human Development Theory of Democracy\***

### **Introduction**

This article presents a theory that seeks to explain why nations move toward or retain democratic institutions during waves of regime transitions, and subsequently establish or preserve stable democracy. We test this theory against data from the most recent transition wave, the period from 1988 to 1993, using survey data, economic data and democracy scores from 42 nations included in the 1990-91 World Values Survey.

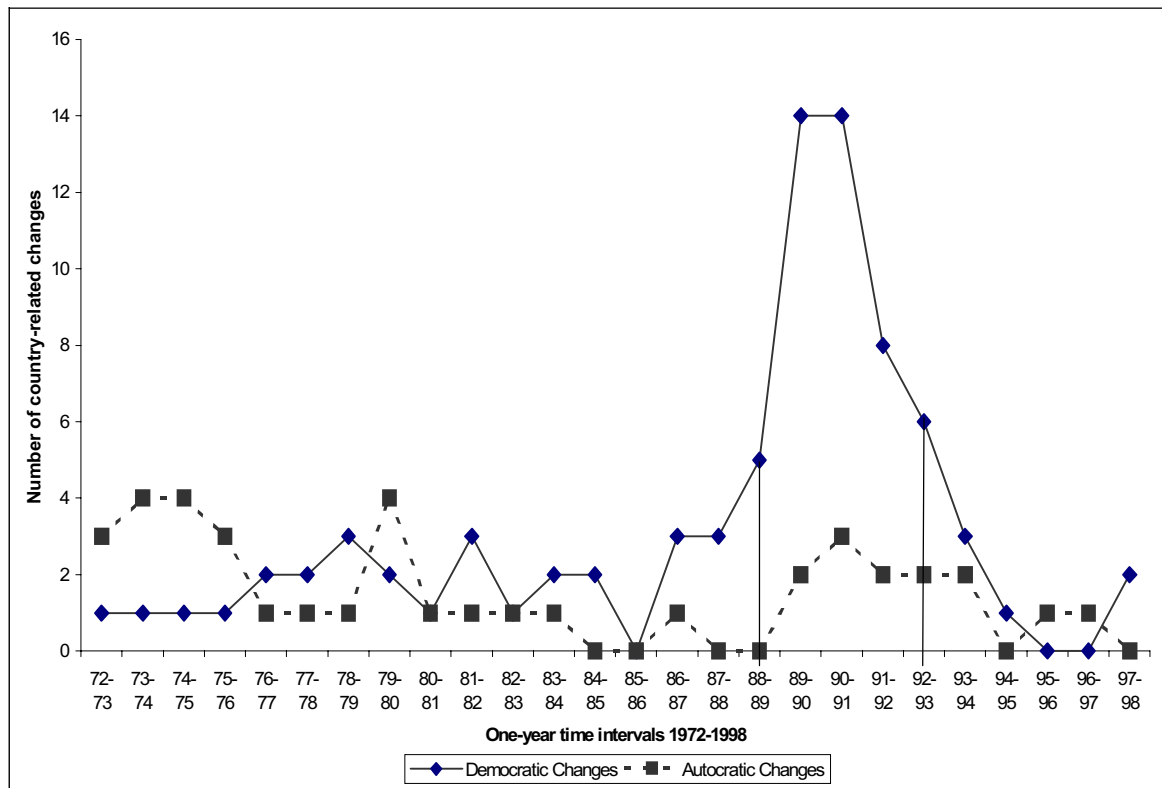
As Huntington (1991) argues, transitions to democracy are not evenly spaced over time; they occur in waves. Figure 1 (based on the Freedom House freedom ratings) confirms the wave thesis: during the sixteen years from 1972 to 1988, there were 28 regime changes toward democracy (i.e., toward increased freedom rights); but during the *five* years from 1988 to 1993, there were 47 such changes (more than five times as many per year); and then, during the *next* five years, from 1993 to 1998, the number of changes toward democracy shrank to 6.<sup>1</sup> The wave of democratic changes during the short period from 1988 to 1993 reflects a particular window of opportunity when international conditions became favorable to democratic transitions. This window of opportunity structures our analysis, which focuses on the causal sequences underlying: (1) the *changes* toward democracy that took place during 1988-1993, and (2) the subsequent *levels* of democracy that existed during the period from 1993 to 1998.

---

\* We are indebted to Dieter Fuchs, Tom W. Rice, Joel Liske, Hans-Dieter Klingemann, Hanspeter Kriesi and Edeltraud Roller for comments on earlier drafts of this paper. We alone are responsible for any shortcomings and mistakes.

1 We reversed the polarity of the 7-point Freedom House scales and multiplied the scores for civil and political rights, so that we obtained a scale ranging from 1 (lowest level of freedom rights) to 49 (highest level of freedom). We then counted the number of annual regime changes of at least 25 per cent (12 points) upwards or downwards on this scale. We use the product and not the average of civil and political rights in order to give the smaller score a greater influence on the resulting value in the combined scale. This is warranted because the proportion of countries scoring high (6 or 7) on the political rights scale increased from 24 to 46 per cent between 1972 and 1998, while the respective proportion in the civil rights scale increased from 23 to 33 per cent only. Multiplying instead of averaging the scores avoids inflating freedom changes which only occurred in the political rights dimension.

Figure 1: Number of Changes of at Least 25% Downwards or Upwards on the Freedom House Index



The early literature on the Third Wave focused on the proximate causes of democratization. “Transitologists,” on one hand, dealt primarily with the strategic elite bargainings that shaped the transition processes toward democracy. Most of these authors saw regime transitions as depending on short-term factors, especially the situation-specific choices made by national elites (cf. O’Donnell and Schmitter 1986; Higley and Gunther 1992; Przeworski 1992; Casper and Taylor 1996). “Consolidologists,” on the other hand, focused on questions of institutional choice, assuming that specific institutional designs, such as parliamentary democracy and proportional representation, are the main factor shaping the consolidation of new democracies (Lijphart 1992; Mainwaring 1993; Linz and Valenzuela 1994; Frye 1997). But because there is evidence of strong relationships between democracy and certain long-term factors—such as economic development and strong civic cultural traits—both the elite and the institutional approach have been criticized for underestimating the structural constraints on elites’ institutional choices (Gasirowski and Power 1998: 741,766; Reisinger 1999: 1, 12-3). Thus, the more recent literature on democratization reflects a reappraisal of long-term influences on democracy (for an overview see Shin 1994; Remmer 1995; Eckstein 1998), presenting cross-national evidence that elites’

choices are themselves shaped by the society's mass-level traits (e.g. Barro 1997: 49-88; Gasiorowski and Power 1998).

Authors concerned with the deeper-lying causes of democracy agree that economic development, a Western cultural heritage, democratic regime experience, ethnic homogeneity, income equality, and a strong civic culture, including a vital civil society, may all have positive impacts on democracy. But the relative weight of these factors is controversial. One major dispute deals with the causal relationship between political culture and regime institutions, with one group of authors arguing that a strong civic culture is conducive to viable democratic institutions (Almond and Verba 1963; Putnam 1993; Inglehart 1997), while others claim that the causation works the other way around: democratic institutions create a democratic political culture (Rustow 1970; Barry 1978; Schmitter and Karl 1991; Muller and Seligson 1994).

Our theory is directly relevant to this debate, claiming that democracy derives from a developmental sequence in which one causal direction is dominant. This sequence begins with the accumulation of physical and cognitive human resources through the process of economic development. The sequence continues with cultural change towards increasing emphasis on human self-expression, reflected in rising liberty aspirations, and culminates in the emergence and consolidation of democracy, or institutionalized freedom. Our concept of human development integrates these processes, relating all of them to the growth of human choice in society.<sup>2</sup> The concept of human development gives clear theoretical guidance in specifying what variables are most crucial in the developmental sequence. The key components are human resources in the economic sphere, liberty aspirations in the cultural sphere, and freedom rights in the sphere of regime institutions. Each of these components contributes to human development insofar as it reduces one major type of constraints on human choice: human resources reduce physical and cognitive constraints, liberty aspirations reduce motivational constraints, and freedom rights reduce institutional constraints on human choice. We suggest that these components are connected by probabilistic and time-lagged relationships that follow a two-stage-sequence: first, the growth of human resources favors a culture of rising demands for self-expression reflected in liberty aspirations; these liberty aspirations, in turn, contribute to the emergence and consolidation of institutionalized freedom (i.e. democracy).

We will analyze these hypotheses empirically, testing them against rival possibilities, such as that liberty aspirations are produced by democratic institutions, rather than the reverse. In addition, we will take the impact of diffusion processes into consideration. Many

---

<sup>2</sup> Human development has a biological dimension based on the evolution of human beings' genetic characteristics. While these biological processes take place over extremely long periods of time, human development in the social sphere can be observed and analyzed over relatively short periods of time.

authors have sought to explain the recent transition wave in terms of “snowballing” (Huntington 1991: 100-5) or “diffusion” (Whitehead 1986; Modelski and Perry 1991; Starr 1991), assuming that exogenous factors, such as the regional spread of democratic values, might be more important in promoting democracy than endogenous factors. We agree that diffusion plays a significant role, but our results indicate that the degree to which a given society is open to the diffusion of democracy depends on prior human developments within that society.

The first part of this article outlines our theory of human development, discussing the variables we will use as indicators of the three components of human development and formulating a set of specific hypotheses. These hypotheses will then be tested against rival hypotheses, using attitudinal data from the 1990-91 World Values Survey, together with economic data from the United Nations Development Program, and democracy scores from Freedom House.

## 1. Theory

### *1.1 The Basic Modernization Model*

Our theory builds on previous work that has explored the linkages between economic development and democracy. The thesis that economic development leads to “bourgeois” democracy was proposed long ago by Karl Marx, and was anchored in modern political science by Lipset’s (1959) empirical study of the social requisites of democracy. The thesis has been debated extensively. Some of the key studies include Cutright (1963), McCrone and Cnudde (1967), Olsen (1968), Jackman (1973), Bollen (1979; 1983), Vanhanen (1989; 1997), Diamond (1992), Hadenius (1992), Huber, Rueschemeyer and Stephens (1993), Lipset, Seong and Torres (1993), Vanhanen and Kimber (1995), Barro (1997), and Gasiorowski and Power (1998). All of these studies find linkages between economic development and democracy. Moreover, as Cutright and Wiley (1969), Winham (1970), Bollen and Jackman (1985), Helliwell (1992), and Burkhart and Lewis-Beck (1994) have demonstrated, these correlations reflect a causal linkage having a specific direction: development causes democracy more than the reverse.

On the other hand, Przeworski and Limongi (1997: 176-8) claim that economic development accounts for the survival of democracies but not for their implementation. They base this conclusion on the finding that, during the period 1950-1990, democracies were not more likely to become established in richer countries than in poorer ones. But this is an inappropriate test, since by 1950, most of the rich countries already *were* democracies;

there was still plenty of room to establish new democracies among poorer nations, so that is where most of them emerged. Consequently, the relevant question is whether democracy was more likely to emerge in rich countries *than autocracy was*—and this is exactly what their data demonstrate (Przeworski and Limongi, 1997: 162, Table 2): in countries with per capita incomes below \$3,000, autocracy was more likely to emerge than democracy; but among countries above this level, democracy was likelier to emerge than autocracy—with the odds-*ratio* changing in favor of democracy, with rising income levels. Development tends to bring democracy. As Diamond puts it (1992: 110): “given the considerable variation in quantitative methods, in countries and years tested, in the measures of democracy employed, and in the vast array of different regression equations [...], this must rank as one of the most powerful and robust relationships in the study of comparative national development.”

But economic development is only one of two basic factors underlying democratization. The other is cultural change, which plays an equally important role, as Almond and Verba (1963), Inkeles and Smith (1974), Inglehart (1990) and Putnam (1993) argue. Logically, this must be true: implementing and securing democracy does not, and can not, directly result from economic development by itself. Democratization is brought about by the behavior of human beings, which in turn reflects their values and attitudes. Hence, the impact of economic development on democracy works through its tendency to produce pro-democratic values and attitudes, especially among the educated and wealthy members of the “middle class” which grows with economic development (cf. Inkeles 1961: 195-7; Sniderman 1975: 165-221; Brint 1984; Lamont 1987; Inkeles and Diamond 1980).

The role of pro-democratic attitudes was analyzed comparatively by Almond’s and Verba’s (1963) work on the Civic Culture. Thirty years later, Putnam’s widely cited *Making Democracy Work* presents a new variation on this idea: a syndrome of democracy-supporting attitudes and behaviors, called “social capital,” is crucial to the successful functioning of democracy (Putnam 1993: 181-6). Accordingly, the emergence of sustainable democracy is linked with cultural changes that give rise to pro-democratic attitudes.

The basic modernization model, pointing to an economy-culture-regime causal sequence, existed only as an interpretative paradigm until Inglehart assembled a sufficiently large body of survey data to test the model empirically. Inglehart (1990: 44-8; 1997: 181-205) demonstrated that indicators of economic development (per capita GDP, and the percentage of the labor force in the service sector) favored a syndrome of pro-democratic attitudes (interpersonal trust, political moderation, and subjective well-being), and that these attitudes were the strongest predictors of both *levels* of democracy and democratic *change*. But Inglehart did not focus specifically on liberty aspirations, although this would have been consistent with his general theory of postmaterialist value change; indeed, three of the

six items he used to measure postmaterialist values focus explicitly on demands for civil and political liberties (see section 2). In keeping with our theoretical framework, which assigns a central role to rising aspirations for free choice, we hypothesize that these liberty aspirations should have a stronger impact on democracy than any of his other items, or *any* other pro-democratic attitude. Our analysis will test this hypothesis. Moreover, Inglehart's study suffers from a methodological weakness: logically, the independent variable (pro-democratic attitudes) should be measured at a time preceding the dependent variable (stable democracy); but since he measured stable democracy during the period from 1920 to 1995, and neither his nor any other worldwide surveys of political culture were carried out until well after 1920, his analysis of the cultural factors linked with stable democracy was necessarily out of the right time sequence: he found strong linkages, but his causal inferences rested on the undemonstrable assumption that the cross-national cultural differences measured in 1981 and 1990 were indicative of differences that had existed decades earlier. The present analyses do not rest on such assumptions; we use variables measured in the logical time sequence.

Viewing "human development" as the underlying theme of the modernization sequence moves our analysis to a higher level of abstraction that points to certain specific variables as playing particularly important roles in this sequence. The next section discusses human development as the common theme of this sequence. Whether this concept generates a model that accurately reflects reality, will be tested in the empirical section that follows.

## *1.2 The Threefold Structure of Human Development*

Only with an understanding of its underlying theme can one view the modernization sequence as an integrated whole. Without it, one is likely to overlook the general logic connecting the relation between economic development and culture change, on one hand; and the relation between culture change and democratization, on the other hand. Both relations are components of a broader process of human development.

Following Sen (1997), we view human development as the enlargement of people's capabilities and opportunities to base their lives on their own choices. Human development is the growth of human choice in society. We do not assume that human development is inevitable; we simply define it in a way that enables us to test whether human development has taken place, and if so, to measure how far it has gone in its related dimensions.

Human development requires contributions from three distinct spheres of social reality: the economic structure, the political culture and the regime institutions. The most basic elements of human development are physical and cognitive human resources (i.e., physical

and human capital) which increase with economic development. Growing physical resources reduce the material constraints on human choice. In societies with low levels of physical resources, people's attention and energy is largely absorbed in meeting the need for economic subsistence, leaving relatively little opportunity for other activities. But human choice is also constrained by low levels of skills and knowledge. Rising levels of education, thus, reduce the cognitive constraints on human choice. Physical and cognitive human resources are core products of economic development. In reducing the material and cognitive constraints on human choice, these resources contribute to human development. Our analyses use measures of prosperity (per capita GDP) and education (number of years spent in full-time education) as indicators of physical and cognitive human resources, respectively.

Physical and cognitive resources are necessary but insufficient factors in human development. These resources constitute the hardware of human choice, but the appropriate software is also needed to make it work. This software emerges as people become increasingly enabled to give a high priority to self-actualization and self-expression in their lives. The emergence of a culture with strong demands for self-expression leads to increasingly strong demands for political institutions that permit autonomous choice, especially when a central authority regulates essential aspects of the citizens' lives. When this is true, self-expression is not only linked with aspirations for private autonomy but also with aspirations for free public choices in the selection of collective goals, rules and leaders. These liberty aspirations represent the motivational (and thus cultural) contribution to the growth of human choice. In order to measure how widespread liberty aspirations are in a given society, we use the relevant items in the postmaterialism battery as explained in section 2.

Even when human resources and liberty aspirations are widespread, there can be severe institutional constraints on human choice. People may have the resources and motivation to broaden their scope of activities, but they can be prevented from doing so by authoritarian institutions that deny people the right to public self-expression. Hence, effective civil and political rights are the key contribution to human development on the institutional level. In subsequent analyses we will use the Freedom House ratings of civil and political rights as indicators of a society's level of institutionalized freedom, or democracy.

In short, human development is based on three key elements, all related to the growth of human choice in society. These elements are human resources, liberty aspirations, and freedom rights. They derive from three distinct spheres of social reality: economic structure, political culture, and regime institutions, through three processes of change: economic development, rising demands for self-expression, and democratization.

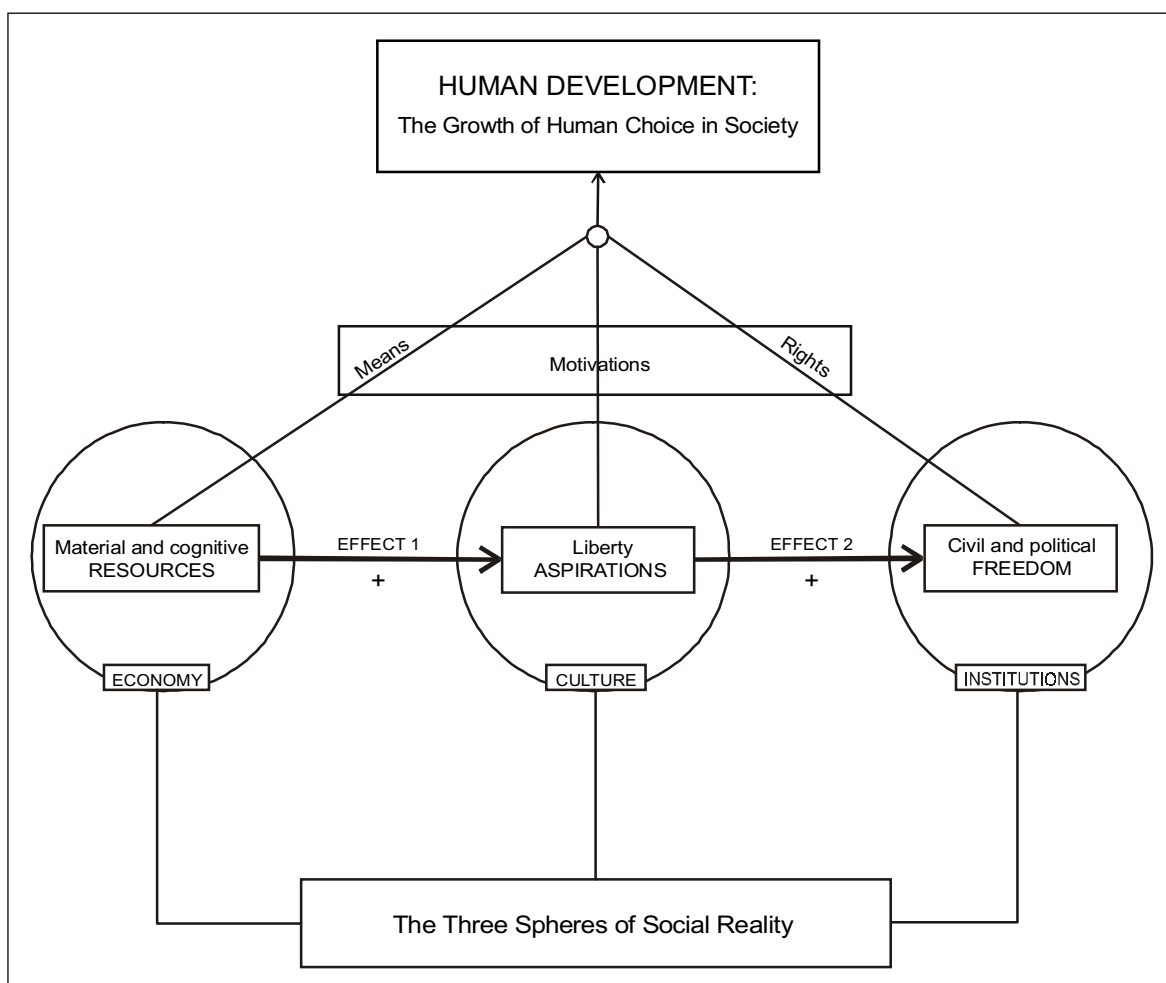
Human resources, liberty aspirations and freedom rights are distinct components of human development, but they are linked to each other through time-lagged and probabilistic relations. Though we recognize the existence of recursive relations, we suggest that causality works mainly in the direction from resources to aspirations to rights. People whose choice is constrained by the lack of physical and cognitive resources are unlikely to give top priority to the pursuit of civil and political liberties because their time and energy is largely absorbed by efforts to secure their economic subsistence (Inglehart 1997). Accordingly, we expect to find relatively weak liberty aspirations in societies with scarce human resources, placing relatively little pressure on elites to establish or preserve democratic freedom. But as economic development occurs, liberty aspirations become more salient, and mass demands for institutionalized freedom increase. Once established, freedom rights themselves may tend to foster liberty aspirations. But according to the logic of human needs, the major effects should operate in the direction from human resources to liberty aspirations to freedom rights.

However, the effects of this sequence follow different dynamics: the impact of human resources on liberty aspirations tends to develop continuously, while the impact of liberty aspirations on freedom rights operates mainly within particular windows of opportunity that may suddenly be opened up by events on the international stage, such as the allied victory in World War II or the collapse of communism. Thus, while changes in economic structure and political culture tend to emerge steadily and slowly, sudden changes in regime institutions can occur within short periods of time (see Figure 1). For many years, given societies can maintain a lower level of freedom rights than would be expected from their level of liberty aspirations. But when a transition opportunity opens up, mass-level liberty aspirations become crucial, placing intense pressures on elites to bring the level of freedom rights into congruence with internal demands for them.

These considerations, together with the fact that causes must precede their effects, leads us to arrange our variables sequentially, in the analyses that follow. We will analyze the impact of a society's level of human resources that existed *before* the most recent transition wave (i.e., before 1988) on the level of liberty aspirations that existed *during* that transition wave (i.e., from 1988 to 1993); and their subsequent impact on the level of freedom rights found *after* the transition wave (i.e., after 1993).

Analyzing the latest wave of democratic transitions from the human development perspective generates two major hypotheses. These hypotheses are depicted graphically in Figure 2 which provides an overview of the reasoning underlying this entire article.

Figure 2: Human Development and its Components



Hypothesis 1:

*The level of liberty aspirations that was present in a society during the recent transition wave varies in proportion to the level of physical and cognitive human resources accumulated prior to that wave.*

Hypothesis 2:

*The level of a society's freedom rights (or degree of democratization) that is found after the recent transition wave, varies in proportion to the level of liberty aspirations that was present in that society during the transition wave.*

Hypothesis 2 does not explicitly refer to changes in freedom rights, but it implies two ways in which liberty aspirations affect changes in freedom rights, depending on the society's level of democracy at the start of the transition wave:

**Hypothesis 2.1:**

*In societies that entered the transition wave on a low level of freedom rights (i.e., as autocracies), that level rose in proportion to the level of liberty aspirations present during the transition wave.*

**Hypothesis 2.2:**

*In societies that entered the transition wave with a higher level of liberty rights (as democracies or semi-democracies), that level resisted decline in proportion to the level of liberty aspirations present during the transition wave.*

**2. Analyses****2.1 *The Impact of Human Resources on Liberty Aspirations***

In order to test hypothesis 1 we need measures of liberty aspirations (the dependent variable) and physical and cognitive human resources (the independent variables). The 1990-91 World Values Survey provides measures of mass-level liberty aspirations from more than 40 nations representing a wide range of economic development, cultural traits, and institutionalized freedom (see Appendix for a description of the sample, variables, and data sources). Moreover, these data were measured in the proper time sequence—during 1988-93, the most recent transition wave. We operationalize *LIBERTY aspirations* by using the relevant items from the 12-item materialist/postmaterialist values battery. These questions are organized into three four-item groups, each of which offers the respondents a choice between two materialist and two postmaterialist items. Three of the six postmaterialist items address political or civil liberties: “giving people more say in important government decisions,” “protecting freedom of speech,” and “seeing that people have more say about how things are done at their jobs and in their communities.”

Depending on how the respondents ranked these items, we scored their liberty aspirations on a six-point index, with 0 indicating the lowest level and 5 the highest level of liberty aspirations. When calculating averages across groups, this ordinal index becomes a continuous scale, since group averages can have any fractional value between 0 and 5. We use the national mean for each society as an indicator of the level of liberty aspirations that were present in that society in 1990-91. Though liberty aspirations vary within societies, the responses are distributed around the national median in a bell-shaped form. Comparing national averages thus reflects these societies’ central tendencies concerning liberty aspirations.

In concept and measurement, postmaterialism combines aspirations for civil and political liberties, together with aspirations for ecological, aesthetic and ethical qualities of life. These two types of aspirations go together in the process of value change and can be treated as one concept—postmaterialism—when dealing with cultural change in general. But when focusing on democratization, one can and should differentiate between liberty aspirations and quality of life aspirations. Since this analysis examines the cultural basis of institutionalized freedom, we will focus on liberty aspirations. Giving top priority to the ecological, aesthetic, and ethical qualities of life is an orientation that first became widespread in postindustrial societies; while liberty aspirations became prominent considerably earlier. To anticipate one of our findings, the relation between each society's level of liberty aspirations in 1990-91 and its level of institutionalized freedom in 1993-98 shows a .72 Pearson correlation (a detailed explanation of the freedom variable appears in the next section). By contrast, each society's quality of life aspirations show a correlation of only .30 with the levels of institutionalized freedom. Thus, the distinction between the two components of the postmaterialism index is meaningful empirically, as well as theoretically.

To operationalize physical and cognitive human resources as independent variables, we use *PROSPERITY*, measured as the logged per capita GDP in 1985, and *EDUCATION*, measured as the number of years spent in full time education averaged over the adult population in 1989-90.<sup>3</sup> But we will not only test whether human resources have a significant positive effect on liberty aspirations, as postulated in hypothesis 1. We will also test whether this effect holds up against rival possibilities. Hence, a number of relevant control variables will be included in the analysis. The literature concerning the long-term causes of democratization discusses the effects of four types of variables on pro-democratic attitudes. Since liberty aspirations are a pro-democratic attitude, they, too, should be influenced by these variables if these theories are correct.

A first group of variables measures *cleavage structures* in society. Building on Aristotle and Tocqueville, Dahl (1973: 81-104) argued that relative equality in the distribution of wealth is conducive to democratic attitudes because it enhances tolerance and trust, which in turn support democratic conflict management. Similarly, Muller (1988: 50-68) presented

---

3 We took the logs of the GDP measure in order to straighten out the curvilinear distribution that appears when the dependent variable, *liberty aspirations*, is plotted against GDP. To test the time-lagged relationship postulated in hypothesis 1, we ideally should have measures of *education* from before 1987. But the earliest measure we could obtain for this indicator is 1989 (and for the post-Soviet and post-Yugoslav nations 1990). The United Nations Development Program has devised a Human Development Index which combines measures of life expectancy, literacy rates and per capita GDP. From our perspective, this index only measures the *resource* component of human development, not human development as a whole. Consequently, this index might be used as an alternative to our measures of physical and cognitive human resources, except for the fact that it is not available for the time for which we need measures of human resources, before 1987 (see Human Development Report 1990).

cross-national evidence indicating that democracy correlates with income equality. We will measure *INCOME equality* by the income share of the poorest 40 per cent of households in a society during the 1980s, with higher income shares indicating increasing equality.

Another cleavage variable prominently discussed is *ethnic polarization*. Again, Dahl (1973: 105-23) has aptly stated the major argument: ethnic cleavages give rise to hostility toward political opponents, which is detrimental to democratic conflict management. Accordingly, Muller and Seligson (1994: 642) found that ethno-linguistic fractionalization had a strongly negative impact on democracy. Because the fractionalization variable is not available for many of the countries in our sample, we will measure *ETHNIC polarity* by the size of the societies' second largest ethnic group as of the mid 1980s, suggesting that polarity—and thus the potential of strong ethnic conflicts—increases as the proportion of the second largest ethnic group approaches 50 per cent.

A second group of authors view pro-democratic attitudes as a concomitant of a Western *cultural heritage*. Following Max Weber (1905), the heritage of Protestant Christianity has been used as an indicator of Westernization: both Bollen and Jackman (1985) and Hadenius (1992: 118-21) found that democracy correlates with the percentage of Protestants in a society. However, this situation has changed in recent years, as increasing numbers of Catholic countries throughout Southern Europe, Latin America, and Eastern Europe have moved towards democracy. Today, almost all of the historically Protestant *and* Catholic countries are democratic, comprising an overwhelming majority of the democratic countries. Thus Huntington (1994) uses the term “Western cultural heritage” in referring to this phenomenon. Accordingly, we will measure *PROTESTANT heritage* by the percentage of Protestants and *WESTERN heritage* by the percentage of Catholics plus Protestants as of the mid 1980s.

A third group of variables that conceivably might overshadow the effect of human resources on liberty aspirations is the country's *institutional experience*. Two aspects of institutional experience have been discussed intensively: experience with institutions that guarantee democratic freedom, and experience with a strong redistributive state. Concerning the first aspect, Rustow (1970), Barry (1978: 50-2), and Schmitter and Karl (1991: 82-3) argue that pro-democratic attitudes are a *consequence* of experience with democracy, instead of a factor contributing to democracy. We will test two indicators of experience with democracy: *INSTITUTIONALIZED freedom<sub>pre-wave</sub>*, which is the societies' freedom house scores averaged over the years 1972-87 (i.e. the pre-transition period) and *DEMOCRATIC continuity*, the number of years of continuous democracy a society experienced up to 1987.

The second aspect of regime experience, the state's redistributive capacity, is emphasized by Gurr, Jagers and Moore (1990: 80-1), who assume that growing demands for political freedom are a response to the redistributive states' increasing intervention into

their citizens' lives (1990: 74). One indicator of a *STATE'S redistributive capacity* is the level of taxes as a percentage of GDP. Since we assume that these relationships are time-lagged, we ideally should have measures of this indicator from before 1987, but 1989-90 is the earliest measure available for most of the countries in our sample.

The fourth and final group of variables to be taken into consideration are indicators of *diffusion*. Many authors argue that the trans-national wave of democratization reflects the diffusion of pro-democratic attitudes and values, facilitated by the globalization of communication (cf. Pye 1990; Modelski and Perry 1991; Starr 1991). If value diffusion is a major force underlying democratization, then a society's level of liberty aspirations should be a function of the levels in surrounding societies. We operationalized two variables indicating value diffusion. For the first diffusion variable, *DIFFUSION I*, we assigned to each country the average level of liberty aspirations found in its neighboring countries. In the cases of Nigeria and South Africa no measure of liberty aspirations in neighboring countries exists; for these countries, we assigned values estimated from regressing *diffusion I* on liberty aspirations. In order to create our second diffusion variable, *DIFFUSION II*, we assigned each country the level of liberty aspirations of the *highest scoring* country in its vicinity, assuming that the higher scoring countries of a region may serve as models in the process of value diffusion. If there was no country scoring higher in liberty aspirations than the respective country itself, this country obtained its own value. These procedures tend to inflate the chances that the diffusion variables will correctly predict a society's liberty aspirations, since in some cases the prediction is circular. This means that we are subjecting our hypotheses to a relatively severe test.

Summing up, we will use two indicators of *human resources* which—according to our concept of human development—should be the strongest predictors of liberty aspirations. These indicators are prosperity, tapping physical resources, and education, tapping cognitive resources. In addition we have nine control predictors, organized in four groups. The first group consists of *social cleavage* indicators: income equality and ethnic polarity. The second group consists of *cultural heritage* indicators: Protestant heritage and Western heritage. The third group is based on three *institutional experience* indicators: institutionalized freedom, democratic continuity and the state's redistributive capacity. The fourth group taps the trans-national *diffusion* of liberty aspirations: diffusion I and diffusion II.

Table 1 shows the bivariate correlations between the level of liberty aspirations and each of our predictors. Because of the temporal order of the variables, with most of the predictors measured in the mid 1980s and the dependent variable measured in 1990-91, these correlations can plausibly be interpreted as indicators of causality (although we will of course proceed to make more rigorous tests). Under this premise, the figures in Table 1 support our first hypothesis: both prosperity and education (i.e., physical and cognitive

human resources) have positive and significant effects on the levels of liberty aspirations. Prosperity seems to be more closely related to liberty aspirations than education, but the time point of measurement for education (1989-90) may be too close to that of liberty aspirations (1990-91) to permit the effects of education to emerge fully, since hypothesis 1 suggests that these effects are time-lagged. But we should note that two other indicators of education (the literacy rate and the tertiary enrollment ratio), also measured in 1989-90, did not show stronger effects on liberty aspirations than the indicator used here.

*Table 1: Aggregate Correlates of Liberty Aspiration Levels: Pearson Correlations (N)*

Correlates	Level of Liberty Aspirations, 1990	
<i>Human resources:</i>		
- Prosperity, 1985	.77*****	(41)
- Education, 1989-90	.64*****	(36)
<i>Cleavage structure:</i>		
- Income equality, mostly 1980s	.11	(27)
- Ethnic polarity, mid 1980s	-.16	(41)
<i>Cultural heritage:</i>		
- Protestant heritage, mid 1980s	.40***	(41)
- Western heritage, mid 1980s	.65*****	(41)
<i>Institutional experience:</i>		
- Democratic continuity, till 1987	.64*****	(41)
- Institutionalized freedom <sub>pre-wave</sub> , Ø 1972-87	.70*****	(41)
- State's redistributive capacity, 1989-90	.42**	(28)
<i>Diffusion:</i>		
- Diffusion I (Ø liberty aspirations neighboring countries)	.72*****	(41)
- Diffusion II (liberty aspirations of highest scoring country in the neighborhood)	.63*****	(41)

\*\*\*\*\*p < .001; \*\*\*\*p < .005; \*\*\*p < .01; \*\*p < .05; \*p < .10.

*Note:* See Appendix for operationalization of variables and data sources.

Most of the rival hypotheses are also supported: we find significant and fairly strong effects on liberty aspirations from Western heritage, institutionalized freedom, democratic continuity and from both diffusion I and diffusion II. Protestant heritage and the state's redistributive capacity show weaker but significant effects. Though they have the expected sign (negative in the case of ethnic polarity), the social cleavage predictors show insignificant effects.

For the sake of parsimony, variables having insignificant effects will be dropped from further analysis. And we introduce into multivariate analysis only the strongest predictor

from each of the remaining four groups of variables: to do otherwise would contaminate the results with serious collinearity.<sup>4</sup> These considerations produce a regression model that includes prosperity, Western heritage, institutionalized freedom, and diffusion I as predictors of liberty aspirations. Before discussing the results in Table 2, some remarks on our handling of “unusual” or “influential” cases are needed.

There are two sorts of unusual cases: “outliers” from the regression line, i.e. outliers in the common statistical sense; and outliers from the distributional area of the majority of cases, or “leverage cases.” Unusual cases are a major problem in cross-national research, causing nonnormal distributions of residuals in small samples (Moon and Dixon 1992: 208). Unfortunately, even a modest departure from normality can reduce the reliability of OLS-estimates (Dietz, Kalof and Frey 1987: 381-3). An appropriate way to deal with this problem is to employ robust estimation and bounded influence estimation. Robust estimators are much more efficient than OLS-estimators in the presence of outliers and only slightly less efficient when outliers are absent. In the case of bounded influence estimation, the same is true for both outliers and leverage cases (Welsch 1980). In order to permit comparisons, the following tables display OLS-models, robust models based on “least absolute error” (LAE) estimation and bounded influence models based on “weighted least squares” (RLS).<sup>5</sup> Our interpretation will be based on the most appropriate of these estimations, depending on whether we find neither outliers nor leverage cases (then relying on OLS), outliers but no leverage cases (relying on LAE), leverage cases but no outliers or both leverage cases and outliers (relying on RLS).

Let us consider Table 2.<sup>6</sup> Since outliers are present in the cases of Finland, the Netherlands, and Romania, and since no leverage cases exist, the LAE-model provides the most

---

4 In a multivariate regression including all predictors, the collinearity between variables that belong to the same group exceeds a 5.0 threshold in the variance inflation factors (VIF). Variance inflation factors represent a measure of collinearity among predictors. Following a common convention, the values should remain below 5.0 or the results can be considered adulterated by collinearity (Judge et al. 1988: 869). The formula for the variance inflation factor is:  $VIF = 1 / (1 - R_j^2)$ .

5 The most widely used method in robust regression is the “least absolute error” estimation (LAE) whose objective is to minimize the sum of absolute errors (Judge et. al. 1988: 902-4). Minimizing the sum of absolute instead of squared errors avoids to inflate the deviations of outliers (Welsch 1980: 158-62). Following a common convention, we consider cases as outliers when they deviate more than two standard deviations from the regression line. In order to implement bounded influence estimation, “influential cases” have to be identified first. For this purpose we use the DFFITS which indicate for each observation of a sample the scaled change in model fit when this observation is deleted. The formula is:  $DFFITS_i = (h_i / (1 - h_i))^{1/2} * e_i$ , where  $h_i$  is the “leverage” of the  $i$ -th observation and  $e_i$  is the studentized residual of the  $i$ -th observation. The cutting point for classifying cases as influential is  $2 \sqrt{(k + 1) / (n - k - 1)}$ , where  $k$  is the number of predictors and  $n$  the number of observations. The next step is to weight the influential cases by the ratio of their DFFITS and the cutting point. All other cases are weighted with factor 1. The weight variable is then introduced to a “reweighted least squares” (RLS) regression (cf. Welsch 1980: 164-7).

6 Our tables display standardized regression coefficients because we are not interested in the steepness of slopes but in the relative strength of effects insofar as their contribution to the explained variance is con-

Table 2: Predicting Levels of Liberty Aspirations with Structural Variables

Predictors	Dependent variable: level of liberty aspirations 1990 (minimum: .00; maximum: 5.00)			
	VIF <sup>1)</sup>	Standardized Beta-Coefficients		
		OLS <sup>2)</sup>	LAE <sup>3)</sup>	RLS <sup>4)</sup>
<i>Human resources:</i>				
Prosperity, 1985	2.21	.42****	<b>.34*****</b>	.42****
<i>Cultural heritage:</i>				
Western heritage, mid 1980s	2.38	.25*	<b>.16***</b>	.21
<i>Institutional experience:</i>				
Institutionalized freedom pre-wave, Ø1972-87	1.99	.23*	<b>.23*****</b>	.22*
<i>Diffusion:</i>				
Diffusion I	3.38	.11	<b>.20***</b>	.17
$R^2$		.70 <sup>5)</sup>	<b>.73<sup>6)</sup></b>	.71 <sup>6)</sup>
$N$			41	
Outliers			Finland, Netherlands, Romania	
Leverage cases			—	

Note: All models calculated with constant.

1) 'Variance inflation factor' (VIF) calculated from OLS-estimation.

2) 'Ordinary least squares' (OLS) estimation, method 'enter.'

3) 'Robust' regression based on 'least absolute error' (LAE) estimation.

4) 'Bounded influence' regression based on 'reweighted least squares' (RLS) estimation.

5) Adjusted.

6) Between observed and predicted.

\*\*\*\*\* $p < .001$ ; \*\*\*\* $p < .005$ ; \*\*\* $p < .01$ ; \*\* $p < .05$ ; \* $p < .10$ .

For operationalization of variables and data sources see Appendix.

reliable results. As one can see from the coefficients, the hypothesis that prosperity has a positive effect on liberty aspirations, holds up against rival hypotheses: prosperity shows the highest significance level and has a stronger impact than institutionalized freedom, Western heritage and diffusion I, although these variables also show significant effects.<sup>7</sup> Let us note that the LAE model is *least* favorable to the effect of prosperity, but even this

---

cerned. When variables are measured in different units, standardized regression coefficients should be compared for this purpose (Norušis 1995: 334).

- 7 Our findings are not based on an ecological fallacy since they are valid on the individual level, too. An individual's financial status and education has significant positive effects on his or her liberty aspirations. However, the effects are less pronounced on the individual level (.10 correlation) than on the societal level (.60 to .80 correlation). Thus, in constituting the relation between human resources and liberty aspirations there is a dominance of contextual over individual traits: whether a person lives in a wealthy and educated nation has more impact on that person's liberty aspirations than her own prosperity and education (for similar findings see Inkeles 1978: 63; Inkeles and Diamond 1980).

model shows prosperity to have the strongest effect on liberty aspirations. Since the variance inflation factors remain below a 5.0 threshold, the results do not seem to be distorted by collinearity.

These findings undermine the thesis that democratic institutions are the main cause of pro-democratic attitudes. Institutions are important, but they do not determine a society's political culture. These findings also undermine the interpretation that pro-democratic attitudes are mainly due to a Western heritage, or value diffusion. High levels of liberty aspirations seem to result from prosperity, above all. Our results indicate that even non-Western and non-democratic societies, as well as societies lacking democratic neighbors, have the potential to develop high levels of liberty aspirations, if human resources are growing.

## *2.2 The Impact of Liberty Aspirations on Democracy*

Our analyses indicate that liberty aspirations do not primarily result from the presence of democratic institutions. Instead, we hypothesize that liberty aspirations themselves have a major impact on the emergence and survival of democratic institutions. Accordingly, hypothesis 2 postulates that the level of liberty aspirations that was present in a society during the recent transition wave, has a positive effect on the subsequent level of institutionalized freedom—either by causing change toward democracy (in the case of autocracies) or by helping sustain regime stability (in the case of democracies). As a measure of institutionalized freedom, we use the scores for political and civil rights published annually by Freedom House. These scores provide a widely-accepted measure that has a long time series dating from 1972 to the present. The Freedom House scores are highly correlated with other measures of democracy, such as those developed by Bollen and Jackman (1985), Vanhanen (1989), Arat (1991), Coppedge and Reinicke (1991), Hadenius (1992), Gasiorowski (1993) and Gurr and Jagers (1995). The Freedom House scores show Spearman correlations of .85 or higher with most of these measures (see the table in Gurr and Jagers 1995: 475). However, the most important reason for using Freedom House scores here is a theoretical one; these scores focus on that aspect of democracy which is most relevant to human choice: the extent to which citizens possess freedom rights.

We reversed the polarity of the civil and political rights scales so that higher values indicate higher levels of freedom rights. We then multiplied the scores, producing an index ranging from 1 (lowest level of freedom rights) to 49 (highest level of freedom rights). We use the product rather than the average of the civil and political rights scores, because many countries have moved substantially on the political scale but not on the civil rights

dimension (see fn. 1). If civil and political rights interact to produce institutionalized freedom, one should not allow the scores to compensate for each other, which is done by taking averages and is avoided by taking the products. We will use the product of the civil and political rights scores to analyze the societies' *INSTITUTIONALIZED freedom<sub>post-wave</sub>*, during the years 1993 to 1998—the period *after* the most recent wave of regime transitions (see Figure 1).

According to hypothesis 2, a society's level of liberty aspirations during the transition wave should have a positive effect on the society's subsequent level of institutionalized freedom. We will test this hypothesis against rival possibilities, including several measures of pro-democratic attitudes. We do not consider liberty aspirations to be the only pro-democratic attitude that may have a significant impact on democracy, but our theory does imply that liberty aspirations play the most crucial role. By contrast, other authors emphasize the relevance of various other pro-democratic attitudes in promoting and sustaining democracy. Muller and Seligson (1994), for instance, have emphasized the role of *political MODERATION*, while Inglehart (1990, 1997) stressed the importance of *subjective well-being* (measured by *life SATISFACTION* and *HAPPINESS*) in legitimating and sustaining democratic institutions. But the cultural trait that is most often argued to have a decisive impact on democracy is *social capital* which, according to Putnam (1993: 167-76), is based on *interpersonal TRUST* and *ASSOCIATION membership*. The 1990-91 World Values Survey includes measures of all of these variables, enabling us to test hypothesis 2, controlling for the rival effects of political moderation, subjective well-being and social capital.

Figure 3 displays a series of scatterplots showing the level of institutionalized freedom (or degree of democratization) on the y-axis and the various cultural predictors on the x-axis. All of the original plots revealed flattening curvilinear distributions. Thus, we face ceiling-effects indicating that each additional unit in a predictor variable produces diminishing gains in the level of freedom rights. Regardless of whether we interpret this observation as reflecting "real" marginal increases or as an artifact of the limited continuum which the Freedom House measures produce, we need to straighten out the curvilinear distributions before using multivariate regression. Applying the "bulging-rule" (Fox 1991: 60), linearization was carried out by squaring the level of institutionalized freedom. We then equated the highest possible value ( $49 \times 49 = 2,401$ ) with 100 per cent.<sup>8</sup>

---

<sup>8</sup> Another possibility is to take the logs of the independent variables. But in this case we would have to conduct five variable transformations in contrast to the one transformation involved in squaring the dependent variable. When the same need can be filled by fewer transformations, this is the preferable option.

Figure 3: Cultural Predictors of Institutionalized Freedom (y-axis: level of freedom rights 1993-1998, squared)

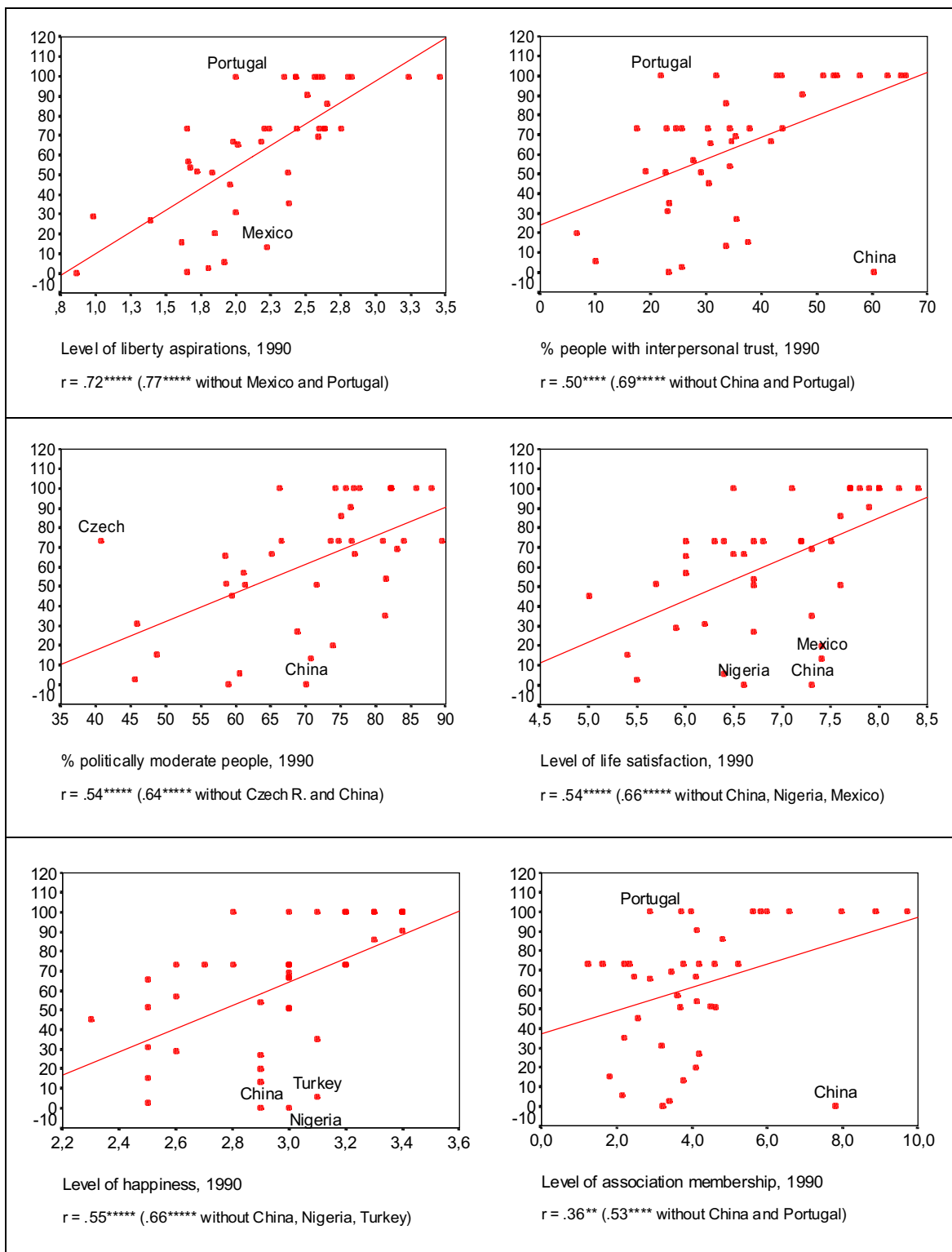


Table 3: Predicting Institutionalized Freedom with Cultural Variables

Predictors <sup>1)</sup>	Dependent variable: squared level of freedom rights 1993-98 (minimum: 0; maximum: 100)			
	VIF <sup>2)</sup>	Standardized Beta-Coefficients		
		OLS <sup>3)</sup>	LAE <sup>4)</sup>	RLS <sup>5)</sup>
<i>Self-expression:</i>				
Liberty aspirations	1.62 (1.62)	.54***** (.54*****)	.33***** (.35*)	<b>.48****</b> <b>(.46****)</b>
<i>Political moderation:</i>				
Political moderation	1.86 (1.90)	.27* (.28*)	.12 (.13)	<b>.29*</b> <b>(.32**)</b>
<i>Subjective well-being:</i>				
Life satisfaction	3.98 (3.97)	-.22 (-.25)	-.27 (-.28)	<b>-.23</b> <b>(-.29)</b>
Happiness	4.68 (5.25)	.09 (.10)	.36** (.27)	<b>.09</b> <b>(.10)</b>
<i>Social capital:</i>				
Interpersonal trust	1.50 (1.85)	.28** (.25*)	.34***** (.30)	<b>.34**</b> <b>(.30**)</b>
(Association membership)	— (1.84)	— (.06)	— (.22)	— <b>(.11)</b>
$R^2$		.55 <sup>6)</sup> (.53 <sup>6)</sup> )	.55 <sup>7)</sup> (.54 <sup>7)</sup> )	<b>.63<sup>7)</sup></b> <b>(.63<sup>7)</sup>)</b>
$N$			40	
Outliers			Portugal	
Leverage cases			China, Czech Republic, Finland	

Note: All models calculated with constant.

1) All predictors measured in 1990-91.

2) 'Variance inflation factors' (VIF), calculated from OLS-estimation.

3) 'Ordinary least squares' (OLS) estimation, method 'enter.'

4) 'Robust' regression based on 'least absolute error' (LAE) estimation.

5) 'Bounded influence' regression based on 'reweighted least squares' (RLS) estimation.

6) Adjusted.

7) Between observed and predicted.

\*\*\*\*\* $p < .001$ ; \*\*\*\* $p < .005$ ; \*\*\* $p < .01$ ; \*\* $p < .05$ ; \* $p < .10$ .

For operationalization of variables and data sources see Appendix.

As Figure 3 demonstrates, liberty aspirations are the closest attitudinal correlate of institutionalized freedom, even when outliers are excluded from estimation. Given the temporal order of the variables, with pro-democratic attitudes measured in 1990-91 and institutionalized freedom measured in 1993-98, one might interpret these correlations in terms of causation. But to gain more certainty in this respect, we controlled for the effects of each variable in multivariate regressions. The results are shown in Table 3. The entries in pa-

rentheses show the results when association membership is included. We put these analyses in parentheses because the association membership variable could be viewed as too strongly manipulated since the relevant questions were not asked in nine of the countries in our sample. For these cases we estimated values by regressing association membership on interpersonal trust. The underlying assumption that trust and association membership go together, is drawn from social capital theory itself, so our manipulation might be considered to be an application of this theory. But as we see from Table 3, it makes no substantial difference whether we include or exclude association membership. Controlling for the pro-democratic attitudes included here, association membership has no independent effect on institutionalized freedom.

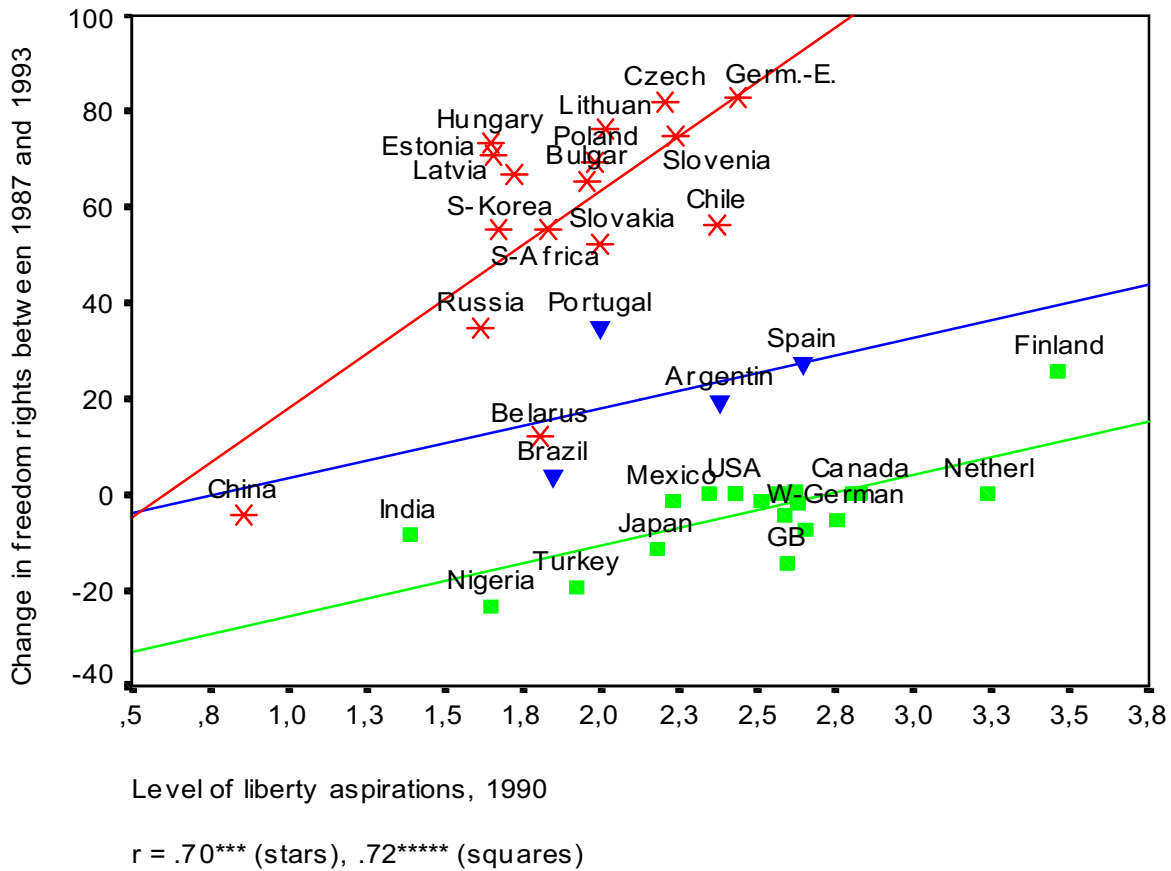
Because we found an outlier (Portugal) as well as leverage cases (China, Czech Republic, Finland), the RLS-model provides the most reliable results. This model indicates that interpersonal trust, political moderation and liberty aspirations all have significant positive effects on institutionalized freedom, but liberty aspirations show the strongest and most significant impact. In particular, liberty aspirations dominate interpersonal trust in predicting institutionalized freedom, in accordance with our theory of human development. The human development perspective focuses on attitudes that reflect human striving for self-expression, because these attitudes lead directly to demands for institutionalized freedom. Liberty aspirations are such an attitude. By contrast, interpersonal trust is less closely linked with demands for institutionalized freedom. These findings suggest that the human development perspective provides more accurate guidance in the search for the decisive cultural basis of democracy, than does social capital theory.

Thus far we have not dealt with one important point. Similar levels of freedom rights today can result from different previous regime experiences: societies that entered the transition wave with a low level of institutionalized freedom (i.e., as autocracies), and now have a high level of freedom, experienced far reaching regime *change*; but with societies that already had some degree of institutionalized freedom (i.e., democracies and semi-democracies), a high level of freedom today implies strong regime *stability*. These differing regime behaviors should be reflected in differing ranges of *CHANGE in institutionalized freedom* from 1972-87, the pre-transition period, to 1993-98, the post-transition period.<sup>9</sup> Since we equated the highest possible value of institutionalized freedom with 100 per cent, the change in institutionalized freedom can range from -100 (maximum loss of freedom) to +100 (maximum gain of freedom).

---

<sup>9</sup> Using averaged scores over the years 1972 to 1987 (pre-transitional) and 1993 to 1998 (post-transitional) introduces an element of durability into the change variable. We therefore measure sustainable rather than fleeting change.

Figure 4: Changes in Institutionalized Freedom by Levels of Liberty Aspirations



According to hypotheses 2.1 and 2.2, liberty aspirations should promote a society's *gains* of freedom rights (in the case of former autocracies) and its resistance to *losses* of freedom rights (in the case of former democracies and semi-democracies). Figure 4 demonstrates the extent to which these hypotheses are confirmed. Former autocracies are marked with points, former democracies and semi-democracies with squares. A third group, marked with triangles, comprises the four pioneer democratizers in our sample which accomplished their democratic transition prior to the transition wave under investigation here.<sup>10</sup> Because of the small number of cases we omit this category from further consideration.

Figure 4 reveals that liberty aspirations have a positive influence on the change in institutionalized freedom among both former autocracies and former (semi-)democracies. Among former autocracies, the gain in freedom rights increases steeply with rising levels of liberty aspirations. Among former (semi-)democracies, the changes are less steep and

<sup>10</sup> Societies were classified as former autocracies if their average level of freedom rights during 1972-1987 was less than 25% of the maximum freedom level (i.e., 12 of 49 possible points). All other societies were put in the category of semi-democracies and democracies, except for the four pioneer democratizers, which were dropped from this classification.

are limited to the lower zone of the scale: with growing liberty aspirations the regression line runs from negative rates to zero change. In other words, the stronger the liberty aspirations are in societies with at least some level of institutionalized freedom, the more they resist declines in that level. This finding is anything but trivial. It implies that both the *emergence* and the *stability* of institutionalized freedom (i.e., democracy) depends to a substantial degree on the same developmental factor: the rise of mass-level liberty aspirations.

Table 4 shows the impact of liberty aspirations on changes in institutionalized freedom, controlling for the other pro-democratic attitudes introduced above. We dropped happiness since it is too highly inflated by life satisfaction (with a variance inflation factor above 5.0) to depict its isolated effect. We have also introduced *PROSPERITY-1990* and another diffusion variable, *CONTAGION*, as further control predictors. We introduced *prosperity-1990* (the per capita GDP in 1990) in order to test the claim that resources *themselves* produce democratic change (see Vanhanen 1997: 21-6). And we introduced *contagion* (assigning each country the average change in freedom rights found in its region) to measure the degree to which democratization is due to regional contamination effects (for a similar operationalization see Gasiorowski and Power 1998: 753). The results for the former autocracies are shown by the figures above parentheses, and those for the former (semi-)democracies in parentheses. Among the former autocracies there are no outliers and two leverage cases (Belarus, Bulgaria); among the former democracies and semi-democracies there is one outlier (Great Britain) and one leverage case (Finland). Hence, for both categories, RLS-estimation provides the most reliable results.

According to the RLS-models, liberty aspirations have the strongest effect on both *increase* in freedom rights (among the former autocracies) and resistance to *decline* in freedom rights (among the former democracies and semi-democracies). Among the former democracies and semi-democracies, liberty aspirations are the *only* variable that shows a significant effect. Among the former autocracies, political moderation and contagion also show significant effects, but they are substantially weaker than the effect of liberty aspirations.

We expected that contagion had a significant impact on the spread of democracy across formerly non-democratic societies, but we also hypothesized that the degree to which a given society is *open* to the diffusion of democracy depends on prior human development traits within this society. And indeed, our key indicator of human development, the society's level of liberty aspirations, has a stronger impact on the rise of democracy than contagion. On the other hand, liberty aspirations reflect human development in terms of motivations, while prosperity represents human development in terms of physical resources. According to our theory, physical resources are important because they initiate the human

Table 4: Predicting Changes in Institutionalized Freedom: Former Autocracies (Former Democracies and Semi-Democracies)

Predictors <sup>1)</sup>	Dependent variable: change in level of freedom rights as difference between $\bar{\emptyset}$ level 1993-98 and $\bar{\emptyset}$ level 1972-87			
	VIF <sup>2)</sup>	Standardized Beta-Coefficients		
		OLS <sup>3)</sup>	LAE <sup>4)</sup>	RLS <sup>5)</sup>
<i>Self-expression:</i>				
Liberty aspirations	2.74 (2.31)	.84**** (.51*)	.69***** (.28)	<b>.83****</b> <b>(.45*)</b>
<i>Political moderation:</i>				
Political moderation	1.70 (2.29)	.51*** (.29)	.46***** (.23)	<b>.48**</b> <b>(.28)</b>
<i>Subjective well-being:</i>				
Life satisfaction	1.93 (3.56)	-.25 (-.26)	-.27** (-.27)	<b>-.22</b> <b>(-.19)</b>
<i>Social capital:</i>				
Interpersonal trust	3.50 (3.17)	.18 (.48)	.04***** (.44)	<b>.16</b> <b>(.45)</b>
<i>Human resources:</i>				
Prosperity-1990	1.76 (3.65)	.07 (-.04)	.12 (.37)	<b>.10</b> <b>(-.01)</b>
<i>Diffusion:</i>				
Contagion (regional $\bar{\emptyset}$ in change of institutionalized freedom)	1.39 (1.90)	.61**** (-.17)	.53***** (.16)	<b>.60****</b> <b>(-.15)</b>
$R^2$		.74 <sup>6)</sup> (.53 <sup>6)</sup>	.83 <sup>7)</sup> (.62 <sup>7)</sup>	<b>.86<sup>7)</sup></b> <b>(.65<sup>7)</sup></b>
N			16 (20)	
Outliers			— (Great Britain)	
Leverage cases			Belarus, Bulgaria (Finland)	

Note: All models calculated with constant.

Predictors measured in 1990-91, except the respective region's  $\bar{\emptyset}$  change in freedom rights, which indicates change between 1972-87 (pre-transition period) and 1993-98 (post-transition period).

2) 'Variance inflation factors' (VIF), calculated from OLS-estimation.

3) 'Ordinary least squares' (OLS) regression, method 'enter.'

4) 'Robust' regression based on 'least absolute error' (LAE) estimation.

5) 'Bounded influence' regression based on 'reweighted least squares' (RLS) estimation.

6) Adjusted.

7) Between observed and predicted.

\*\*\*\*\* $p < .001$ ; \*\*\*\* $p < .005$ ; \*\*\* $p < .01$ ; \*\* $p < .05$ ; \* $p < .10$ .

For operationalization of variables and data sources see Appendix.

development sequence, but their effect on change in institutionalized freedom should primarily operate through their impact on the rise of liberty aspirations. In keeping with these expectations, Table 4 demonstrates that the level of physical resources has no significant effect on change in freedom rights, once we have controlled for liberty aspirations. Wealth by itself does not create democracy.

It seems obvious why our model explains less variance in case of the former democracies and semi-democracies than in case of the former autocracies, and why the contagion effect appears to be significant only in the latter case. Historically, the Third Wave challenged autocracies far more than democracies. For the partly or fully democratic countries, the Third Wave did not offer any special opportunity for regime change, and most of these countries experienced only small changes in institutionalized freedom. Yet, with an explained variance of 65 per cent, our model does relatively well in explaining the relatively few changes that took place in these countries.

## Conclusion

Clearly, our theory of human development does not, by itself, explain the emergence and survival of democracy, since other factors also play important roles. These factors include international events that open up favorable opportunities for the emergence of democracy, and elite interactions shaping nation-specific transition processes. Our model presupposes the working of these factors without attempting to explain them. Thus, we have not modeled the regime choice process itself but left it as a black box. Nevertheless, our models explain 65 to 85 per cent of the variance in the *results* of regime choice processes. It seems clear that regime choices do not depend solely on the situation-specific decisions of elites: they, themselves, are bounded within probability limits set by the given society's mass-level human development traits.

Human development is the growth of human choice in society. It refers to the enlargement of human beings' capabilities and opportunities to base their lives on their own choices. Economic development, cultural change and democratization are essential components of human development. They provide: (1) human resources that reduce the material and cognitive constraints on human choice, (2) demands for self-expression, reflected in liberty aspirations, which increase the motivation to defend and broaden human choice, and (3) freedom rights, reducing the institutional constraints on human choice. Resources, motivations and rights are distinct components of human development that are related in a time-lagged and probabilistic sequence.

Analyzing this sequence we focused on liberty aspirations in its double role, first as an effect and then as a cause in the flow of human development. We have found, first, that liberty aspirations are shaped by human resource levels more than by other structural predictors, such as social cleavages, Western heritage, institutional experience, or diffusion. And we have also found that liberty aspirations are a stronger predictor of democratic freedom than other theoretically important pro-democratic orientations, such as political moderation, subjective well-being and social capital. Furthermore, the evidence indicates that mass-level liberty aspirations determine how open given societies are to regional contagion effects. Liberty aspirations have strong and significantly positive impacts on both the movement toward democracy and the survival of democracy.

Although the two are closely correlated empirically, there are strong theoretical reasons why we have used the liberty component of postmaterialism, rather than postmaterialism itself, as a predictor of democracy. The full-blown postmaterialist phenomenon emerges at an advanced stage of postindustrial society, and therefore can not account for the rise of democracy in earlier periods. And even in countries that are at the postindustrial level, democracy emerged first and postmaterialism followed. But these limitations apply to only one of the two components of postmaterialism, its emphasis on the ecological, aesthetic and ethical quality of life. Giving top priority to one's aspirations for higher ecological, aesthetic and ethical qualities of life is a phenomenon of postindustrialism, but this is not true of liberty aspirations. Although they, too, continue to evolve in the course of economic development, they were already present much earlier; only the extent to which mass publics give them top priority today is new. But even when they were important mainly among elite strata, liberty aspirations functioned as a crucial cause of democracy in all countries where democracy emerged from within the society. Already in the 18th and 19th centuries, in the handful of semi-democracies that existed then, the impulse to democratize came from liberty aspirations, expressed by such demands as "no taxation without representation" or "liberté, égalité, fraternité." The key difference between these early democracies and contemporary democracies is the far broader mass base of liberty aspirations that exists in contemporary democracies. Today, economic development in many countries is sufficiently advanced that a high priority for liberty aspirations is no longer restricted to the bourgeoisie and intellectuals, but is widespread across entire populations. This vast broadening of the social base of liberty aspirations is one of the most central factors underlying the unprecedented spread of democratic freedom during the transition wave of 1988-1992. Although this process operated mainly during a particular window of opportunity, once that window was open, the expansion of liberty aspirations to a mass level had an historic impact.

In some countries democracy did not emerge from mass-level liberty aspirations, but was imposed by external forces, as in the cases of Germany, Italy and Japan after World War II, or by narrow elite strata, as in India and Turkey. But even in these countries, the evolving level of liberty aspirations helps account for the level and stability of democracy, or institutionalized freedom. As they developed growing human resources, Germany, Italy and Japan experienced substantially rising levels of liberty aspirations; while India and Turkey retained much lower levels of liberty aspirations, along with relatively stagnant human resource development. Consequently, Germany, Italy, and Japan preserved high levels of democratic freedom, while India and Turkey experienced significant declines in democratic freedom. Thus, even in societies that did not originally obtain democracy in response to mass-level demands, the sequence from human resources to liberty aspirations to democratic performance has an important impact.

This article has examined the relationships between the three key elements of human development along a specific causal sequence, chosen to test the basic modernization model. But the human development perspective can be used to analyze both sequential and recursive relationships between its elements. Indeed, in our empirical analyses we detected one indication of recursivity: current liberty aspirations promote institutionalized freedom in subsequent times, but also derive from institutionalized freedom in previous times. But controlling for other factors, democratic institutions are not the major force that gives rise to liberty aspirations; while on the other hand, liberty aspirations have a major impact on institutionalized freedom, even if controlled for other factors including diffusion.

Our findings point to the conclusion that the human development sequence depicts a major process shaping the long-term causes of democratic change and stability. These causes work both within societies and on the international stage. Growing human resources, leading to rising liberty aspirations, eventually produce inner-societal demands for democracy. Consequently, most stable democracies emerge in the context of rich human resources which, in turn, makes them strong competitors on the international stage. These resources helped democracies to outlast communism and explains why a particular window of opportunity opened up in the late 1980s that favored the spread of democracy. But once such a window is open, whether a given society moves through it, how democratic it becomes, and how strongly it sustains democracy, largely depends on internal developments.

## References

Almond, Gabriel A., and Sidney Verba. 1963. *The Civic Culture: Political Attitudes in Five Western Democracies*. Princeton, NJ: Princeton University Press.

- Arat, Zehra F. 1991. *Democracy and Human Rights in Developing Countries*. Boulder, CO: Lynne Rienner.
- Barro, Robert J. 1997. *Determinants of Economic Growth: A Cross-Country Empirical Study*. Cambridge, MA: MIT Press.
- Barry, Brian. 1978. *Sociologists, Economists, and Democracy*. Chicago, IL: University of Chicago Press.
- Bollen, Kenneth A. 1979. "Political Democracy and the Timing of Development." *American Sociological Review* 44(August):572-87.
- Bollen, Kenneth A. 1983. "World System Position, Dependency and Democracy: The Cross-National Evidence." *American Sociological Review* 48(August):468-79.
- Bollen, Kenneth A., and Robert W. Jackman. 1985. "Political Democracy and the Size Distribution of Income." *American Sociological Review* 50(August):438-57.
- Brint, Steven, 1984. "'New Class' and Cumulative Trend Explanations of the Liberal Political Attitudes of Professionals." *American Journal of Sociology* 90(July):30-71.
- Britannica Book of the Year*. 1990. 1993, ed. Encyclopaedia Britannica. London: Encyclopaedia Britannica Inc.
- Burkhart, Ross E., and Michael S. Lewis-Beck. 1994. "Comparative Democracy: The Economic Development Thesis." *American Political Science Review* 88(December):903-10.
- Casper, Gretchen, and Michelle M. Taylor. 1996. *Negotiating Democracy: Transitions from Authoritarian Rule*. Pittsburgh, PA: University of Pittsburgh Press.
- Coppedge, Michael, and Wolfgang H. Reinicke. 1990. "Measuring Polyarchy." *Studies in Comparative International Development* 25(Spring):51-72.
- Cutright, Phillips. 1963. "National Political Development: Measurement and Analysis." *American Sociological Review* 28(April):253-64.
- Cutright, Phillips, and James A. Wiley. 1969. "Modernization and Political Representation: 1927-1966." *Studies in Comparative International Development* 5(1):23-44.
- Dahl, Robert A. 1973. *Polyarchy: Participation and Opposition*. 2nd edition, New Haven: Yale University Press.
- Diamond, Larry. 1992. "Economic Development and Democracy Reconsidered." In *Reexamining Democracy*. Garry Marks and Larry Diamond, eds. London: Sage, 93-139.
- Dietz, Thomas, R. Scott Frey, and Linda Kalof. 1987. "Estimation with Cross-National Data: Robust and Nonparametric Methods." *American Sociological Review* 52(June):380-90.
- Eckstein, Harry. 1998. "Lessons for the 'Third Wave' from the First: An Essay on Democratization." In *Can Democracy Take Root in Post-Soviet Russia? Explorations in State-*

- Society Relations*. Harry Eckstein, Frederic J. Fleron Jr., Erik P. Hoffmann, and William M. Reisinger, eds. Lanham, MD: Rowman & Littlefield, 249-85.
- Fox, John. 1991. *Regression Diagnostics*. Newbury Park, CA: Sage.
- Freedom in the World*. 1978-1997. Freedom House, ed. Lanham, MD: University Press of America.
- Frye, Timothy. 1997. "A Politics of Institutional Choice: Post-Communist Presidencies." *Comparative Political Studies* 30(October):523-52.
- Gasiorowski, Mark J. 1993. "The Political Regimes Project." In *On Measuring Democracy: Its Consequences and Conditions*. Alex Inkeles, ed. London: Transaction, 105-121.
- Gasiorowski, Mark J., and Timothy Power. 1998. "The Structural Determinants of Democratic Consolidation: Evidence from the Third World." *Comparative Political Studies* 31(December):740-71.
- Gastil, Raymond D. 1990. "The Comparative Survey of Freedom: Experiences and Suggestions." *Studies in Comparative International Development* 25(Spring):25-50.
- Gurr, Ted R., Keith Jagers, and Will H. Moore. 1990. "The Transformation of the Western State: The Growth of Democracy, Autocracy, and State Power Since 1800." *Studies in Comparative International Development* 25(Spring):73-108.
- Gurr, Ted R., and Keith Jagers. 1995. "Tracking Democracy's Third Wave with the Polity III Data." *Journal of Peace Research* 32(4):469-82.
- Hadenius, Axel. 1992. *Democracy and Development*. New York: Cambridge University Press.
- Helliwell, John F. 1993. "Empirical Linkages Between Democracy and Economic Growth." *British Journal of Political Science* 24(April):225-48.
- Higley, John, and Richard Gunther, eds. 1992. *Elites and Democratic Consolidation in Latin America and Southern Europe*. New York: Cambridge University Press.
- Huber, Evelyne, Dietrich Rueschemeyer, and John D. Stephens. 1993. "The Impact of Economic Development on Democracy." *Journal of Economic Perspectives* 7(3):71-85.
- Huntington, Samuel H. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. London: University of Oklahoma Press.
- Huntington, Samuel H. 1994. "The Clash of Civilizations." *Foreign Affairs* 72(3):22-49.
- Human Development Report*. 1991. 1992. 1996. United Nations Development Program, ed. New York: Oxford University Press.
- Inglehart, Ronald. 1990. *Culture Shift in Advanced Industrial Societies*. Princeton, NJ: Princeton University Press.

- Inglehart, Ronald. 1997. *Modernization and Postmodernization*. Princeton, NJ: Princeton University Press.
- Inkeles, Alex. 1961. "National Character and Modern Political Systems." In *Psychological Anthropology: Approaches to Culture and Personality*. L. Francis and K. Hsu, eds. Homewood, IL: Dorsey Press, 178-200.
- Inkeles, Alex. 1978. "National Differences in Individual Modernity." *Comparative Studies in Sociology* 1(1):47-72.
- Inkeles, Alex and David H. Smith. 1974. *Becoming Modern: Individual Change in Six Developing Countries*. Cambridge, MA: Harvard University Press.
- Inkeles, Alex and Larry Diamond. 1980. "Personal Qualities as a Reflection of Level of National Development." In *Comparative Studies on the Quality of Life*. F. Andrews and A. Szalai, eds. London: Sage, 73-109.
- Jackman, Robert W. 1973. "On the Relation of Economic Development to Democratic Performance." *American Journal of Political Science* 17(4):611-21.
- Judge, George G., R. Carter Hill, William E. Griffiths, Helmut Lütkepohl and Tsoung-Chao Lee. 1988. *Introduction to the Theory and Practice of Econometrics*. 2nd ed. New York: Wiley.
- Lamont, Michele. 1987. "Cultural Capital and the Liberal Political Attitudes of Professionals." *American Journal of Sociology* 92(May):1501-5.
- Lijphart, Arend. 1992. *Parliamentary versus Presidential Government*. New York: Oxford University Press.
- Linz, Juan J., and Arturo A. Valenzuela, eds. 1994. *The Failure of Presidential Democracy*. Baltimore: Johns Hopkins University Press.
- Linz, Juan J., and Alfred Stepan. 1996. *Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe*. Baltimore: Johns Hopkins University Press.
- Lipset, Seymour M. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *American Political Science Review* 53(March):69-105.
- Lipset, Seymour M., Kyoung-Ryung Seong, and John C. Torres. 1993. "A Comparative Analysis of the Social Requisites of Democracy." *International Social Science Journal* 45(May):155-75.
- Mainwaring, Scott. 1993. "Presidentialism, Multipartyism, and Democracy: The Difficult Equation." *Comparative Political Studies* 26(2):198-228.
- Maslow, Abraham H. 1954 [1970]. *Motivation and Personality*. New York: Harper & Row.

- McCrone, Donald J., and Charles F. Cnudde. 1967. "Toward A Communications Theory of Democratic Political Development: A Causal Model." *American Political Science Review* 61(March):72-9.
- Moon, Bruce E., and William J. Dixon. 1992. "Basic Needs and Growth-Welfare Trade-Offs." *International Studies Quarterly* 36(Spring):191-212.
- Muller, Edward N., 1988. "Democracy, Economic Development and Income Inequality." *American Sociological Review* 53(February):50-68.
- Muller, Edward N., and Mitchell A. Seligson. 1994. "Civic Culture and Democracy: The Question of Causal Relationships." *American Political Science Review* 88(3): 635-52.
- Norušis, Marija J. 1992. *SPSS Base System User's Guide*. Chicago, IL: SPSS Inc.
- Olsen, Marvin E. 1968. "Multivariate Analysis of National Political Development." *American Sociological Review* 35(4):699-712.
- Przeworski, Adam. 1992. "The Games of Transition." In *Issues in Democratic Consolidation: The New South American Democracies in Comparative Perspective*. Scott Mainwaring, Guillermo O'Donnell, and Arturo Valenzuela, eds. Notre Dame, IN: University of Notre Dame Press, 105-52.
- Przeworski, Adam, and Fernando Limongi. 1997. "Modernization: Theories and Facts." *World Politics* 49(January):155-83.
- Putnam, Robert D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.
- Pye, Lucian W. 1990. "Political Science and the Crisis of Authoritarianism." *American Political Science Review* 84(March):3-19.
- O'Donnell, Guillermo, and Philippe C. Schmitter. 1986. "Tentative Conclusions about Uncertain Democracies." In *Transitions from Authoritarian Rule*. Vol. 4. Guillermo O'Donnell, Philippe C. Schmitter, and Laurence Whitehead, eds. Baltimore: Johns Hopkins University Press, 1-78.
- Schmitter, Philippe C., and Terry Lynn Karl. 1991. "What Democracy Is ... and Is Not." *Journal of Democracy* 2(Summer):75-88.
- Reisinger, William M. 1999. *Reassessing Theories of Transition Away From Authoritarian Regimes: Regional Patterns Among Postcommunist Countries* (Paper presented at the 1999 Annual Meeting of the Midwest Political Science Association, April 15-17, Chicago, IL).
- Remmer, Karen L. 1995. "New Theoretical Perspectives on Democratization." *Comparative Politics* 28(1):103-22.
- Rustow, Dankwart A., 1970. "Transitions to Democracy: Toward a Dynamic Model." *Comparative Politics* 2(April):337-63.

- Sen, Amartya. 1997. "Human Capital and Human Capability." *World Development* 25(12):1959-61.
- Shin, Doh Chull. 1994. "On the Third Wave of Democratization: A Synthesis and Evaluation of Recent Theory and Research." *World Politics* 47(October):135-70.
- Sniderman, Paul. 1975. *Personality and Democratic Politics*. Berkeley, CA: University of California Press.
- Starr, Harvey. 1991. "Diffusion Approaches to the Spread of Democracy in the International System." *Journal of Conflict Resolution* 35(2):356-81.
- United Nations Statistical Yearbook*. 1994. 1996. United Nations, ed. New York: United Nations Publication.
- Vanhanen, Tatu. 1989. "The Level of Democratization Related to Socioeconomic Variables in 147 States 1980-1985." *Scandinavian Political Studies* 12(2):95-127.
- Vanhanen, Tatu. 1997. *Prospects of Democracy: A Study of 172 Countries*. London: Routledge.
- Vanhanen, Tatu, and Richard Kimber. 1995. "Predicting and Explaining Democratization in Eastern Europe." In *Democratization in Eastern Europe*. Geoffrey Pridham and Tatu Vanhanen, eds. London: Routledge, 63-98.
- Weber, Max. 1905 [1958]. *The Protestant Ethic and the Spirit of Capitalism*. Boston: Allen and Unwin.
- Welsch, Roy E. 1980. "Regression Sensitivity Analysis and Bounded-Influence Estimation." In *Evaluation of Econometric Models*. J. Kmenta and J. B. Ramsey, eds. New York: Academic Press, 153-67.
- Whitehead, Laurence. 1986. "Three International Dimensions of Democratization." In *The International Dimensions of Democratizations*. Laurence Whitehead, ed. Oxford: Oxford University Press, 3-25.
- Winham, Gilbert R. 1970. "Political Development and Lerner's Theory: Further Test of a Causal Model." *American Political Science Review* 64(4):810-8.

## Appendix

### *List of Countries Included in World Values Survey 1990-91 (in order of related regions)*

1. *Western countries:* 1.1 *North America* Canada, USA. 1.2 *Northern & Protestant Western Europe:* Denmark, Germany (East), Germany (West), Finland, Great Britain, Iceland, Ireland, Netherlands, Norway, Sweden, Switzerland. 1.3 *Southern & Catholic Western Europe:* Austria, Belgium, France, Italy, Portugal, Spain. 2. *Post-communist countries:* 2.1 *Catholic Central Europe:* Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia. 2.2 *Orthodox Eastern & Southeastern Europe:* Belarus, Bulgaria, Romania, Russia. 3. *Near & Middle East:* Turkey. 4. *Western Africa:* Nigeria. 5. *Southern Africa:* South Africa. 6. *Southern Asia:* India. 7. *Eastern Asia:* China, Japan, South Korea. 8. *Central America:* Mexico. 9. *Southern America:* Argentina, Brazil, Chile.

*Note:* The 1990-91 World Values Survey (WVS) is available via the ICPSR survey data archive (ICPSR #6160). These surveys were conducted by the World Values Survey group, coordinated by Ronald Inglehart. We excluded Moscow and Northern Ireland from our analyses. In Tables 1 and 2, the Czech and Slovak samples have been merged as Czechoslovakia. Romania and Switzerland are excluded from Tables 3 and 4, since the relevant questions were not asked there.

### *List of Variables and Data Sources (in order of appearance in the text)*

*LIBERTY aspirations:* see explanation at the end of this Appendix.

*PROSPERITY:* logged per capita GDP 1985 in US-\$ at market exchange rates, from United Nations Statistical Yearbook 1992 (published 1994).

*EDUCATION:* average number of years which people of at least 25 years spent in full-time education in 1989-90, from Human Development Report 1991.

*PROTESTANT heritage:* percentage of Protestants around the mid 1980s, from the 1990 Britannica Book of the Year (for post-Soviet and post-Yugoslav states from the 1993 edition).

*WESTERN heritage:* percentage of Protestants plus Catholics around the mid 1980s. Source of data is the same as for Protestant Christianity.

*INCOME equality:* share in GDP of the poorest 40% of households between 1981 and 1993, from Human Development Report 1996.

*ETHNIC polarity*: percentage of the second largest ethnic group around the mid 1980s.

Source of data is the same as for Protestant Christianity.

*INSTITUTIONALIZED freedom<sub>pre-wave</sub>*: reversely recoded, multiplied, and to 100 per cent standardized civil and political rights scores of Freedom House, averaged over the years 1972 to 1987. Data drawn from Freedom in the World (related years) and Freedom House's webpage: <http://www.freedomhouse.org>. Post-Soviet and post-Yugoslav states obtained scores from the Soviet Union or Yugoslavia, respectively. For the indicators of Freedom House see *Freedom in the World 1995-96* (1996:530-5) and Gastil (1990).

*DEMOCRATIC continuity*: number of years of continuous democracy, counted from the first complete year in national independence till 1987, except Post-Soviet and post-Yugoslav states which obtained the values of the Soviet Union or Yugoslavia, respectively. Those years were counted as democratic in which a country scored on at least 8 points on the 10-point democracy scale of Gurr and Jagers. Source of data is the "Polity III" data set of Gurr and Jagers (1995), ICPSR #6695.

*STATE'S redistributive capacity*: share of the state's tax revenue in GDP as of 1989-90, from Human Development Report 1992.

*DIFFUSION I*: each country was assigned the average level of liberty aspirations among its neighboring countries. After constructing diffusion I for all countries except Nigeria and South Africa, we regressed diffusion I on liberty aspirations, and used the resulting equation:  $diffusionI = 0.399 + 0.827 * liberty\ aspirations$ , to estimate diffusion I for Nigeria and South Africa.

*DIFFUSION II*: each country was assigned the value of liberty aspirations from the highest-scoring country in its vicinity. If no country scored higher the country obtained its own value in liberty aspirations.

*Political MODERATION*: percentage of respondents opting for "gradual reforms" (instead of "status quo" and "revolutionary change") when asked for their preferred mode of societal change, from WVS variable 94.

*Life SATISFACTION*: national average on a 10-point rating scale for life satisfaction, from WVS variable 96.

*HAPPINESS*: national average on a 4-point rating scale for feelings of personal happiness (polarity reversed so that higher values indicate greater happiness), from WVS variable 18.

*Interpersonal TRUST*: percentage of respondents believing "most people can be trusted," from WVS variable 94.

*ASSOCIATION membership*: percentage of respondents who reported to be active members in at least one of various types of voluntary associations, multiplied by the average number of memberships among members, divided by the maximum number of possible member-

ships. We excluded membership in political parties and trade unions from this calculation, since these organizations are not generally accepted as parts of the civil society on which social capital theory focuses (see for instance Linz and Stepan 1996:7-15). The related questions were not asked in Belarus, the Czech Republic, India, Nigeria, Poland, the Slovak Republic, South Africa, and Turkey. For these countries we estimated association membership by regressing this variable on interpersonal trust:  $association\ membership = 1.249 + 0.08 * interpersonal\ trust$ . Data from WVS variables 19 to 21 and variables 24 to 32.

*INSTITUTIONALIZED freedom<sub>post-wave</sub>*: same as institutionalized freedom<sub>pre-wave</sub>, but averaged over the years 1993-98, and squared for the analyses in Table 3. Data taken from Freedom in the World (related years).

*CHANGE in institutionalized freedom*: difference between institutionalized freedom<sub>post-wave</sub> versus institutionalized freedom<sub>pre-wave</sub>.

*PROSPERITY-1990*: per capita GDP in US-Dollar at market exchange rates in 1990, from United Nations Statistical Yearbook 1994 (published 1996).

*CONTAGION*: we assigned each country the average change in institutionalized freedom in its region (for regions see country-list). Regional averages were calculated for all countries scored by Freedom House.

### *The Materialism-Postmaterialism Battery*

The questions on materialist/postmaterialist values have the following wording (liberty items in bold letters): “People sometimes talk about what the aims of this country should be for the next ten years. On this card are listed some of the goals which different people would give top priority. Would you please say which one of these you, yourself, consider the most important? And which would be the next most important? - A high level of economic growth. - Making sure this country has strong defense forces. - **Seeing that people have more say about how things are done at their jobs and in their communities.** - Trying to make our cities and countryside more beautiful. If you had to choose, which one of the things on this card is the most important? And which one is the next most important? - Maintaining order in the nation. - **Giving people more say in important government decisions.** - Fighting rising prices. - **Protecting freedom of speech.**

If the liberty item in the first battery was chosen as first priority, as second priority, or not at all, we assigned scores of 2, 1 or 0, respectively. If the two liberty items in the second battery were chosen as both first and second priorities, as first priority only, as second

priority only, or not at all, we assigned scores of 3, 2, 1, or 0, respectively. We then added these scores, obtaining a six-point index ranging from 0 to 5.