

The Nature of Postmaterialism:
A Comparative Study of West Germany and the United States

by

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(ABSTRACT)

The social and economic structures in Western societies are changing and with them are the political values of their citizens. This study investigates the nature of post-materialist value orientations in the United States and West Germany. The research aimed at determining whether the indicators that Ronald Inglehart developed almost twenty years ago for explaining value-shifts are reliable tools to predict the nature of postmaterialist values. These factors are: rising levels of education, a distinct cohort experience, and increased levels of economic security. With the help of mass-survey data from 1974 and 1980 that were collected in the United States and West Germany it was shown that there are other factors that are more powerful for predicting postmaterial values than the ones specified in Inglehart's theory. Moreover, the predictors are of a different explanatory power in the two countries under consideration. A preliminary attempt was made to find the reasons for the phenomenon of national differences.

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This thesis is dedicated to my mother _____. She will probably never know how much her help, understanding, finger-crossing and love mean to me.

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1. Post-Industrial Society and Post-Materialism

Western societies are being transformed from industrial to post-industrial ones. This theme of "new" and "developing" post-industrial societies has been reiterated time and again since Daniel Bell advanced his concept of a post-industrial society in the early 1960s.¹

In this chapter it will be explained where the notion of "post-industrial society" and Ronald Inglehart's concept of "post-material values" originate. Furthermore, it will be shown how Inglehart's theory of a value-shift complements those theories that deal with changing structures of Western societies from different perspectives.

Bell argues that we can witness a change in the social and economic structures of Western societies, most notably in the United States. Societies once described as "industrialized" further develop toward a kind of society with changed economic and social structures, thereby displaying fewer of the features of the classical "industrial" society. These features include the existence

¹ Bell, 1960 and Bell, 1973.
see also: Touraine, 1971 and Brzezinski, 1970.

of a large class of blue collar workers which, by far, outnumbered white collar employees, an educational system that served the privileged and affluent segments of the society, and also high levels of economic insecurity. As the industrial society develops further and becomes post-industrial, more and more blue-collar, manual jobs are replaced by white collar, service jobs and the levels of education rise for virtually all segments of the society.

In The Coming of Post-Industrial Society Bell describes five aspects of industrial society that are affected by the changing societal structures and which are in a state of change:² a) The Economic Sector: the change from a goods-producing to a service economy; b) The Occupational Distribution: the pre-eminence of the professional and the technical class; c) The Axial Principle: the centrality of the theoretical knowledge as the source of innovation and of policy formulation for the society; d) Future Orientation: the control of technology and technological assessment; and e) Decision Making: the creation of a new "intellectual technology".

However, Bell makes it clear that he is primarily concerned with the changes in the societal and economic

² Bell, 1973, p.14.

structures and not the eventual consequences for the political system.

The concept of the post-industrial society deals primarily with changes in the social structure, the way in which the economy is being transformed and the occupational system reworked, and with the new relations between theory and empiricism, particularly science and technology. ... But I do not claim that these changes in social structure determine corresponding changes in the polity or the culture.³

Nevertheless, he argues that these changes pose a problem --

"(T)he relationship between the social structure and the political order thus becomes one of the chief problems of power in a post-industrial society ,"⁴ because a new social structure is likely to create new or different policy issues or problems of society-management.

Furthermore, Bell argues that a conflict is likely to ensue between the technocrats and scientists (as products of the "knowledge industry") on the one hand, as they become increasingly important with rising educational levels, and the politicians, on the other hand. This conflict, he believes, culminates in the crucial questions "Who holds

³ Bell, 1973, p.13.

⁴ Bell, 1973, p.13.

power ? and how is power held ?" ⁵

Samuel Huntington picks up this theme of "post-industrial society" and directs his attention toward the nature of post-industrial politics.⁶ He finds that the most important political consequences of the shift from an industrial to a post-industrial society are the further expansion of political participation and the new structures and modes of political participation. Most important among these are civic- and community-oriented organizations and job-oriented participation in the bureaucracies.⁷ These two modes of participation, Huntington argues, place too many demands on already overburdened political systems. This implicitly negative view of democratic politics also holds that

The problem of governance in the United States today stems from an 'excess of democracy'. ... the effective operation of a democratic political system usually requires some measure of apathy and non-involvement on the part of some individuals and groups. The vulnerability of democratic government in the United States comes ... from the internal dynamics of democracy itself in a highly educated, mobilized, and participatory society.⁸

⁵ Bell, 1973, p.358.

⁶ Huntington, 1974 and 1981.

⁷ Huntington, 1974, p.176.

⁸ Huntington, 1975, pp.37-38.

Thus, according to Huntington, the changing social structure has a direct impact on the political system. Huntington creates a link between the changing social and economic structures (as described by Bell and others) and the political system. However, he only scratches the surface of the phenomena of changing societies because his analysis remains at the systemic level and leaves out one vital link, namely the individual citizen.

Ronald Inglehart, whose analyses provide the basis for this thesis, includes an intermediate step. He analyzes the political values at the individual level and detects a shift of the political values and attitudes of Western publics caused by the change in the social structures. He finds that these changing values result in the emergence of new and different policy issues and modes of participation. He explicitly makes the link between a change in the social and economic structure and the change at the individual level -- a link that is only implied in Huntington's analysis.

Huntington:

Change in Social Structure <-----> Change in Political System

Inglehart:

Change in Societal Structure -----> Value Change of Individual -----> Change in Political System

Figure 1-1 Figures of the Huntington and the Inglehart Theories

Inglehart differentiates between materialist and postmaterialist value orientations. Postmaterialist value orientations are a product of a post-industrial society; whereas materialist value orientations are dominant in an industrial society. Materialists place a heavy emphasis on policies of economic growth, public order, national security, and traditional life-styles while postmaterialists favor policies of social equality, a clean environment, freedom of expression, active citizen participation in government and related themes. Inglehart's analyses show that there is a significant shift toward post-material values among Western publics which, as he hypothesizes, result from changing social and economic structures of society (see Fig.1-1). Thus he does not

primarily deal with systemic changes and structures, but rather focuses on the change of political values at the individual level. In order to gain a better understanding of Inglehart's perspective, it is necessary to consider political values.

2. Political Values

In this section of the thesis political values will be described. Different kinds of political values will be examined and it will be described how they have been treated as indicators of social change.

2.1. Political Values and Attitudes

Political values are not to be mistaken for political attitudes. Political values are more permanent and stable than political attitudes and constitute the basis on which political attitudes are formed, which possibly result in political actions. Moreover, political attitudes are directed towards specific issues, persons, or policy goals; whereas political values provide a broad and general framework for the individual's political thinking. However, it is often conclusive to analyze political attitudes and political values together, because they are so intimately linked. Decisions are often the choices between two or more valued goals since psychological research indicates that humans develop a value system which ranks values according

to their importance for the individual. According to Michael Rokeach, this also holds true for political decisions and political values.⁹ Rokeach divides political values into two categories: instrumental and terminal political values. The instrumental values focus on the methods to achieve certain goals that are considered desirable while the terminal values describe the goals that are desired to be achieved.

2.2. Changing Values and Attitudes

David Riesman and Huntington describe a value-shift that is taking place in Western democracies as a result of a movement away from values that are directed toward others (group, social values) to values that are focused on the individual (egocentric).¹⁰ Scott Flanagan complains that other values like respect for authority, conformity, and the work ethic are declining in the United States.¹¹

⁹ Rokeach, 1973.

¹⁰ Riesman, 1968.
Huntington, 1974.

¹¹ Flanagan, 1982.

Moreover, it has widely been argued that the "younger generation" in the United States has become more and more disenchanted with, and alienated from, the political system since the 1960s.¹² Other scholars found that a steady decrease in political trust and political participation has been taking place.¹³ The reasons for these phenomena, however, will not be examined in this thesis.

All of these theories and findings have one aspect in common: that attitudes and values are changing. What, then, one may ask, is new about Inglehart's theory of value change ?

¹² Marsh, 1977; Reich, 1970; Keniston, 1965 and 1971; Roszak, 1969; Goodman, 1960.

¹³ Abramson, 1983; Hill and Luttbeg, 1980; Almond and Verba, 1980; Gilmour and Lamb, 1975; Tarrance, 1976.

3. Inglehart's Approach

Inglehart's approach also hypothesizes that political values are changing. What is new and remarkable about his approach, however, is the systematic inclusion of a number of nations that are supposed to be at a level of comparable economic and social development. Moreover, he develops a more systematic categorization of political values. This makes his theory of value shift more appealing than studies that are based on one country only or one type of value or attitude alone, because it must be the aim of any science to develop universally valid theories and concepts.

In the following chapters the basic concepts upon which Inglehart's theory of value shift is constructed, are analyzed and the operationalization of his concepts will be described.

3.1. Inglehart's Model and Maslow's Theory of Human Goals

Inglehart's model of shifting political values is based on two key hypotheses: 1) A Scarcity Hypothesis and 2) A Socialization Hypothesis. For the development of the

scarcity hypothesis, Inglehart draws on Abraham Maslow's work of a hierarchy of human goals. Maslow holds that individuals initially seek to satisfy basic physiological needs, so-called subsistence needs like food and shelter.¹⁴ After these subsistence needs have been fulfilled, the individual is in a position to pursue other physiological or material goals like safety and better or more food i.e. economic security. If, and only if, these material goals are met individuals may try to satisfy other non-materialist needs i.e., purposive, affective, and solidary goals or social and self-actualization needs. These needs include belonging, self-esteem, and aesthetic as well as intellectual satisfaction.

3.2. Inglehart's Application of the Maslowian Model

Inglehart then applies the logic of the Maslowian model to the world of politics and concludes that "one places the greatest subjective value on those things that are in relatively short supply".¹⁵ He attributes certain

¹⁴ Maslow, 1954.

¹⁵ Inglehart, 1981, p.881.

attitudes concerning general political goals to materialist and post-materialist goals. Furthermore, he subsumes sustenance and safety needs under materialist or physiological needs while categorizing belonging and esteem as well as aesthetic and intellectual needs as post-materialist or social and self-actualization needs.

Inglehart develops twelve questions to tap political values of individuals. He argues that the questions belong to one of the four sub-categories of materialist/post-materialist needs: sustenance needs, safety needs, belonging and esteem, and aesthetic / intellectual needs. The survey-respondents, upon which Inglehart bases his analyses of political values, had to rank the following political goals:¹⁶

- 1) Economic growth,
- 2) Strong defense forces for the country,
- 3) See that people have more to say about how things are done at their jobs and in their communities,
- 4) More beautiful cities and countryside,
- 5) Maintaining order in the nation,
- 6) Give people more say in the government,

¹⁶ For the complete text of the survey questions, see Appendix.

- 7) Fighting rising prices,
- 8) Freedom of speech,
- 9) Stable economy,
- 10) Fight crime,
- 11) A less impersonal and more humane society, and
- 12) A society where ideas count more than money.

"Attaining a stable economy", "economic growth" and "fighting rising prices" are classified as sustenance needs; their relatedness to Maslow's sustenance needs of food and shelter is indirect. "Having strong defense forces", "fighting crime", and "maintaining order" are said to be safety needs i.e., also material needs. "A less impersonal society", "more say on the job", and "more say in the government" are listed under the goals that are part of the postmaterialist category of belonging and esteem. The highest order goals of the Inglehart model include aesthetic and intellectual goals like "free speech", "the importance of ideas" and "beautiful cities and countryside".

3.3. Inglehart's Model and the Socialization Hypothesis

Inglehart sees the need for a complementary hypothesis since one's economic well being does not necessarily influence the individual's subjective perception of security or insecurity. He therefore advances a socialization hypothesis that is meant to complement (on an equal basis) the aforementioned scarcity hypothesis. This socialization hypothesis which "... permeates the literature from Plato through Freud and extends to the findings of contemporary survey research" assumes that "one's basic values reflect the conditions that prevailed during one's preadult years"¹⁷. Furthermore, an essential part of the socialization argument that needs to be mentioned explicitly is that political values, once an individual has incorporated them during the formative years, remain quite stable over time. This suggested stability is essential for Inglehart's argument because it gives him the reason for how a value shift is generated over time. Older generations with certain (stable) values disappear with time and are replaced by newer, younger generations that have been socialized in a different

¹⁷ Inglehart, 1981, p.881.

environment and which therefore hold different values and attitudes that are also supposed to be stable over time. Inglehart calls this a "cohort effect". The number of members of the older cohorts decreases while the number of members of the younger cohorts increases. This presupposes that the number of the members of a new generation is of comparable size or greater than the number of members of the older generations.

3.4. Causes for the Instability of Political Values

Time and again critics of Inglehart's model have questioned and examined the stability of political values which are supposedly incorporated during the individual's formative years. If an instability of political values could be demonstrated, as Ferdinand Boeltken and Wolfgang Jagodzinski most notably argue¹⁸, then Inglehart's model would have a serious flaw. Inglehart mentions two kinds of effects that may influence the longitudinal analysis of

¹⁸ Boeltken and Jagodzinski, 1984.

respondents' answers to questions concerning political values: aging or life-cycle effects and what he calls "period effects".

The life-cycle effect is seen as a complementary cause of instability of political values. The logic behind it states that young people are, for whatever reasons (biological, social, educational, etc.), less materialistic than older people and that these young people adjust their political values over time when they grow older and when material needs and goals become more salient because of experiences like marriage, children and occupation.

Another source of value instability over time is seen in so-called period or historic effects. These effects are external events that are regarded to be powerful enough to influence the political values and attitudes of individuals of all ages over a relatively short period of time, so that the result is a greater or smaller number of materialists or postmaterialists in the population than before these effects became influential. A typical period effect that is analyzed by Inglehart and others is the state of the economy and its influence on the citizens' perceptions of material well-being. Whether the three explanations (cohort, life-cycle, periodic effects) for value changes

over time hold true or not can only be determined by an examination of all potential factors over an extensive period of time while controlling each factor. However, it is not entirely clear how extensive the period of time has to be in order to enable the researcher to dissect plausible rival causal hypotheses.

The scarcity hypothesis and the socialization hypothesis together provide Inglehart with the starting point for explaining the pattern of value change he encounters in his analyses. Deviations from the norm i.e., from the predicted pattern of post-materialist and materialist value orientations, are explained with the help of life-cycle and most often with the help of periodic effects.

3.5. Conclusion and Assumptions

Even though the key hypotheses and the operationalization of Inglehart's concept of value change have been challenged (most notably by Boeltken and Jagodzinski) or modified (by James Savage)¹⁹, they assume that both the hypotheses and the operationalization are generally valid

¹⁹ Boeltken and Jagodzinski, 1985; Savage, 1985.

and reliable.

It cannot be denied that there are some flaws with the model itself as well as in the measurement of relevant concepts. However, one should keep in mind that there are two enormous problems that Inglehart and most researchers in his field have to deal with: 1) non-experimental research, and 2) cross-cultural survey research on political values and attitudes. His measurement instrument is thus very likely to be as imperfect as the measurement of values and attitudes, with the help of public opinion surveys, can be. However, the fact that none of Inglehart's critics has been able to nullify his basic assumptions and findings lends a considerable amount of credibility to his argument.

4. Inglehart's Findings

It is the aim of this chapter to give a brief overview of the findings of Inglehart's analyses. However, because of the diversity of his elaborations, the description will be limited to the main arguments. Naturally, this will imply simplified statements which, nevertheless, help to understand the broad framework that is being dealt with.

There are two main levels of Inglehart's analyses: value change and political skills. Inglehart explicitly defines four changes at the system level that cause changes at the individual level which in turn are the cause of consequences at the systemic level:²⁰

1. Economic and technological development which leads to satisfaction of sustenance needs for increasingly large proportion of population;
2. Distinctive cohort experiences, absence of "total" war during past generation;
3. Rising levels of education; and
4. Expansion of mass communications, penetration of mass media, increase in geographic mobility.

These four changes at the system level have an impact

²⁰ Inglehart, 1977, p.5.

on the political values and the political skills of citizens at the individual level. An increasing number of citizens develop post-materialist value orientations and furthermore are able to cope with politics on a more sophisticated level than before.

Once these changes at the individual level have taken place we can witness, according to Inglehart, the following consequences at the system level:

1. Change in prevailing political issues, increasing salience of "life-style" issues;
2. Change in social bases of political conflict, relative decline of social class conflict;
3. Changes in support for established national institutions, declining legitimacy of nation-state, rise of super-national and "tribal" loyalties; and
4. Change in prevailing types of political participation, decline of elite-directed political mobilization, rise of elite-challenging issue-oriented groups.

4.1. Changing Political Values and Skills

First of all, Inglehart sets out to show that political values are actually changing in Western democracies. He does so with the help of various public opinion surveys that employ his 12 - question or a reduced 4 - question battery. Inglehart's quantitative analyses demonstrate that the members of different generations have differing political values. The younger the respondents are the more likely they are also to have post-materialist value orientations. But these differences could, of course, be due to life-cycle effects, meaning that young age simply causes post-materialist value orientations. In order to rule out this possibility, he shows that political values, once incorporated during the individual's formative years, remain stable over time. Since, according to Inglehart's analyses, the political values do indeed remain quite stable over time, there is little reason to doubt that the finding of different levels of materialism and postmaterialism constitutes a permanent value shift.

Inglehart also mentions that there are certain national differences and peculiarities. However, since it is his aim to show that a systematic value change is taking

place, he tends to neglect the national differences in his analyses for the sake of a convincing overall picture of value change.²¹

His analyses show that the more affluent, the better educated, and the younger an individual is, the more likely is he/she to have a postmaterialist value orientation. This, of course, Inglehart argues, is not to say that postmaterialism will gradually replace materialism.²² Citizens with postmaterialist value orientations will remain a minority for quite some time to come and not, as is foreseeable now, become more numerous than materialists or people with mixed (materialist and post-materialist) value orientations because of decreased birth-rates.²³ Moreover, the long-term economic conditions cannot be projected yet and it is questionable whether they will remain the same during the next decades. However, since the citizens with postmaterialist value orientations are likely to be better educated and also more likely to have jobs with a higher occupational status, they will play an increasingly important role in the process of policy

²¹ see Inglehart, 1977, p.61.

²² Abramson and Inglehart, 1986, pp.22-23.

²³ Abramson and Inglehart, 1987.

formulation and active political participation. This leads to the second level of Inglehart's analysis: what consequences does the shift toward more post-materialist values and the increased levels of political skills have for the political cultures and the politics of Western democracies?

4.2. Consequences for Western Democracies

Among the several consequences of Inglehart's analyses of value change the following two are said to be the most important and intriguing: changing political cleavages, and cognitive mobilization and mass participation in politics. Inglehart argues that the traditional cleavages of industrialized societies are being complemented by one additional cleavage, namely the cleavage between materialists and post-materialists. The reasons for this cleavage lie in the changing employment structures and the rising levels of education. A decreasing number of blue collar and a growing number of white collar workers lead to a weakening of the traditional class cleavage while rising levels of education and changing social structures lead to

a weakening of traditional religious cleavages in addition to strengthening social mobility. Moreover, the traditional partisan cleavages based on these divisions seem to lose their importance and influence as more and more citizens become swing voters, due to greater qualities and quantities of information and an increased capability on part of the voters to digest the information.

The importance of another traditional political cleavage, namely sex, is also diminishing as more and more women cast their votes among different parties and show high levels of political participation. Inglehart makes clear that the old (pre-industrial / industrial) cleavages together with the new (post-industrial) cleavages lead to new voting patterns. Blue-collar employees who overwhelmingly voted for left parties in the past do not necessarily do so anymore. Postmaterialists, on the other hand, tend to identify with "left" issues and vote for parties of the old left, even though they come from an economic stratum of society that used to be the backbone of conservative and liberal parties. The older blue-collar workers are more likely to be materialists rather than

postmaterialists.²⁴

Along with the rise of postmaterialist values goes a change in the political behavior of Western publics. Inglehart argues that a shift occurs with regard to the political skills of Western publics which results in a higher level of political sophistication. Citizens are "cognitively mobilized" and become much more issue-oriented than ever before. Political participation is not purely restricted to voting and other conventional modes of political participation anymore, but can also take the form of unconventional participation like protests, sit-ins, signing petitions, for example. The main reasons for the changing political behavior is the increased sophistication of citizens in an advanced industrial society. This sophistication is produced by the rising levels of education and the much increased amounts of political information transmitted via mass media. After the examination of the phenomenon of "cognitive mobilization", Inglehart also analyzes the modes of political participation that result from the value shift.

Inglehart tries to show that not only is a value shift

²⁴ Savage (1985) expands the Inglehart-model of partisan cleavages by including postmaterialists that vote for parties on the right.

taking place which is expressed in greater numbers of post-materialists. He also examines the implications which this value shift has for the political culture and policy processes of Western democracies.

5. Comparative Research

Inglehart acknowledges that there are important differences between the countries which are part of the samples that he uses for his analyses. This can be detected in his explanations that periodic effects are, for example, of different impact on individual nations and also not of the same kind at the same time. He also describes the existence of different levels of postmaterialism and the reasons for them. In this chapter an attempt will be made to analyze Inglehart's research design.

In the introductory chapter of The Silent Revolution, Inglehart only briefly explains the research design he employs. He indicates that his analyses are undertaken at two different levels: the system level and the individual level. His argument is articulated as follows: System-level changes like the changing social structure or rising levels of education cause individual-level changes of the political values and political skills of individuals, which, in turn, have system-level consequences on the policy issues, political participation and the like. Since Inglehart performs his analyses with survey data from a number of different countries, the question arises what

kind of comparative research he performs.

In order to explain what "comparative" means in this context, the definitions of comparative research and comparative designs will be compared with the methodology that Inglehart employs.

5.1. Comparative Research Designs

Przeworski and Teune explain that there are two types of research designs that exist in comparative social science research: "Most similar systems" and "most different systems" designs. Almond and Verba (1963), for instance, employed a "most similar systems" design for their Civic Culture study, by choosing countries with similar political systems that differed with regard to their level of democratic development. Przeworski and Teune propose that

Intersystemic similarities and intersystemic differences are the focus of the 'most similar systems' design. Systems constitute the original level of analysis, and within - systems variations are explained in terms of systemic factors. ... Common systemic characteristics are conceived of as 'controlled for', whereas intersystemic differences are viewed as explanatory variables. The number of common characteristics sought is maximal and the number of not shared characte-

ristics sought, minimal.²⁵

While the comparative analysis of a "most similar systems" design is performed at the inter-systemic level, the "most different systems" design focuses on the intra-systemic level of analysis.

The initial assumption is that individuals were drawn from the same population; in other words, that systemic factors do not play any role in explaining the observed behavior. ... The design calls for testing whether this population is homogeneous.²⁶

As can be deduced from looking at the definition of the "most similar systems" design, Inglehart's data are suited for an analysis with regard to systemic differences i.e., with a "most similar systems" design, since he assumes that the data can be aggregated because the countries appear to be similar with regard to their basic democratic principles and other factors such as economic development and social structures. However, Inglehart doesn't compare the countries at the systemic level with regard to political values. His analysis focuses on the intra-systemic causes of postmaterialism and the value-shifts that are taking place in different countries. On the other hand, it can be said that an analysis of political

²⁵ Przeworski and Teune, 1970, p.33.

²⁶ Przeworski and Teune, p.35.

values could also be performed with the help of a very broadly conceived "most different systems" design. Inglehart pools the data from the different countries for the part of his analysis that examines the causes of value-shift in Western democracies in general. For this, he assumes they were drawn from one population. He does so for two reasons: a) in order to have a larger data base and thus have more statistical and substantive reliability, and b) in order to be able to make the claim that the materialist/postmaterialist phenomenon can be detected all over Western democracies. Inglehart does assume that the individuals in his analyses are drawn from the same population, and quite often he uses the pooled samples of 9 different countries.²⁷ The differences between the several countries are not regarded as important for explaining the differences between postmaterialists and materialists. The differences between the countries are only regarded as important to explain the different levels of postmaterialism in the countries under consideration.

Przeworski and Teune offer direction in conducting research with 'most different systems' designs:

²⁷ see, e.g. Inglehart, 1977, p.53.

The most different systems designs eliminate factors differentiating social systems by formulating statements that are valid regardless of the systems within which observations are made. As long as these statements continue to be true in all systems, no reference to systemic characteristics is made. As soon as additional statements cannot be validly formulated across systems, however, the hypothesis concerning no difference among systems has to be rejected and the level of analysis is shifted to systemic factors. At this point, the association of the intersystemic variations with the intra-systemic differences would be examined.²⁸

Inglehart's research shows that there are a substantial number of citizens in Western democracies that have post-materialist value orientations and that this number is increasing. It is Inglehart's aim to demonstrate the existence of these values and their causation by analyzing factors like economy or education as well as their shifting distribution. However, there are also clear limitations to any type of comparative research design depending on the theory that is employed.

After the existence of these different political values has been demonstrated, it would be important to compare the countries included in Inglehart's analysis with regard to political values, because it cannot automatically be assumed that the differences in the nature and causation of political values are negligible. In order to make

²⁸ Przeworski and Teune, 1970, p.39.

statements concerning political values that are valid across nations we need to gain an insight into whether the phenomenon of value shift has national peculiarities, since Inglehart theory contains indicators of postmaterialism at any given point in time across Western democracies.

It is assumed that Inglehart's analyses show that post-materialist values exist in Western democracies. It would be fruitful to show then whether two populations are homogeneous with regard to the predictors of post-materialism or whether there are any differences in the nature of postmaterialism in the different nations he analyzes. It would be unreasonable to assume that postmaterialism and materialism are identical across different nations with different political and social cultures. Different policy issues, different social background indicators, and other individual level differences may be associated with the political values of individuals. Moreover, with an increased salience, the aforementioned factors of influence may change or their influence on the definition of political values may vary. It may be that Inglehart's model of a value-shift is valid for one country, while it may fail to explain postmaterialist value orientations in another. A "most

similar systems" design is well suited for explaining the reasons of different indicators of postmaterialism across different nations, because it demands an examination of the systemic differences of different countries and not only the differences of political values in general.

This analysis is not concerned with the shift of political values that is taking place over time, but rather with the question of whether the same indicators are necessarily equally powerful to predict a phenomenon like postmaterialism in different populations that seem quite homogeneous on the outset. An analysis of the nature of postmaterialism in different countries provides the possibility to specify the reasons behind the national differences in the political values.

6. Definition of Working Hypotheses and Questions

Drawing on these criticisms the attitudes and attributes of West Germans and Americans will be compared and an analysis of the political value orientations will be performed. An attempt will be made to answer the following questions: Are there differences between West German and American post-materialism/materialism and, if there are, what are the differences?

It is important to know who postmaterialists are and what accounts for the differences between post-materialists in the United States and West Germany for the following reasons. First, the differences are analyzed for methodological reasons -- showing that there are indeed the hypothesized differences would not lead to a reconsideration of Inglehart's model of a value-shift but its assumed universal applicability. This would also give an indication that it might be wise to study a phenomenon like political values on the systemic level as well as on the non-systemic level with equal intensity. Second, as post-materialism and the political goals and related issues become more and more widespread in Western societies, it is important to know what "makes" an individual a

postmaterialist. Therefore, knowing the nature of post-materialism in West Germany or the United States, rather than in "Western democracies" in general, would be helpful.

The United States and West Germany were chosen for the comparative analysis for the following reasons: 1) both countries have pluralistic, democratic political systems that are based on similar political philosophies and principles; 2) both countries are on a very similar level of economic and social development; and 3) there are significant differences between the two countries with regard to political culture and policy issues such as pollution or disarmament (which are defined as "post-materialist") as well as social variables such as education or socio-economic status.

It is hypothesized that the nature of post-materialism is not identical across the two countries²⁹. It will be argued that there are differences between the two countries with regard to the predictors of post-materialist value orientations. A specification of the national peculiarities that contribute to these differences will be undertaken with the help of quantitative analysis of survey data. Factors that will be considered are social background

²⁹ This was shown in an early analysis by Inglehart, 1971.

variables such as socio-economic status, education, and economic situation, because they are important predictors of possible national dissimilarities. An attempt will be made to develop a model that identifies the factors which most heavily influence postmaterial orientations in West Germany and the United States.

7. Data

The quantitative analysis will be based on two data sets that are particularly well suited to carry out a comparative analysis of political values or attitudes. They are the Political Action Study I and the Political Action Study II. Political Action I is a study of eight nations, Great Britain, Germany, The Netherlands, Austria, United States, Italy, Switzerland, and Finland. The fieldwork in West Germany was carried out between February and May of 1975, while in the United States the data were collected between June and September of 1974. There are 2307 respondents in the cross-sectional data set for West Germany and 1719 cases for the United States.³⁰ Political Action II is a study of only three of the countries that were included in the original Political Action I study: Germany, The Netherlands, and the United States. The fieldwork for this survey was carried out in the United States between May and September of 1981 and West Germany between March and July of 1980.

Aside from the fact that the second Political Action Study included Germany and the United States, there are two

³⁰ see Barnes, Kaase, et. al., 1979.

main reasons why these data sets were chosen for the analysis. First, both use the same index of materialism/post-materialism - an index that will be used as the dependent variable for the analysis, and second, because it includes panel data. The panel data provide an opportunity to study the same respondents at two points in time, which enables the researcher to examine whether postmaterialism is the same phenomenon among an identical group of people in 1974 as it is in 1980 i.e., the stability of indicators for postmaterialism can be assessed over time. The panel data will, therefore, be used as a check on the indicators of postmaterialism whose predictive power will be examined. It would be equally feasible to use the 1980 cross-section data, provided that they are representative. However, it seems more interesting to study the same group of people at two points in time rather than two different groups.

The German panel has 912 respondents while the American sample includes 933 people that were re-interviewed. The response rate for the German panel thus equals almost 40 % (39.53 %); whereas the response rate for the U.S. panel is higher and lies at 54.28 %. The 1974 sample and the 1980 panel-data will be used to

carry out the analysis. However, before an analysis of the panel data can be started, it must be ensured that the panel data is representative and not biased in any way, since this is a problem often encountered when using this kind of data.³¹

7.1. Panel Data

In this section it will be determined whether the panel data for Germany and the United States are biased. A description of the composition of the panel data respondents in 1980 will be given and it will be examined whether it deviates significantly from the original cross-sectional data in 1974, with regard to selected demographic background variables like sex, age, education, social class and family situation. This task can be accomplished by running frequencies for these variables (which have the same categories in both surveys) and comparing the results of the 1974 national samples with the results of the 1980 national panel samples.

³¹ see Call, Otto, and Spenner, 1982, p.108; Alwin, 1977.

7.1.1. Comparing the Panel Data With the
Cross-Sectional Data

In the 1980 panel population there is hardly any deviation from the 1974 cross-section sample with regard to the variables sex, age, education, social class, and family situation. Moreover, the two countries are almost identical with regard to the deviations that have occurred. This indicates that the 1980 panel data is very similar to the 1974 cross-section data with regard to the composition of the samples and a bias is not introduced over time (Tables 7-1, 7-2, 7-3, 7-4,7-5).

The distribution of the variable sex is almost identical in 1974 and 1980 which means that no sex-bias is introduced by the distribution of this variable.

Table 7-1 Distribution of the Variable "Sex" in the 1974 Cross-Section Samples and the 1980 Panel Samples (in Percent)

	1974 D	1974 D	1974 U.S.	1980 U.S.
M	45.8	44.8	42.8	41.7
F	54.2	55.2	57.2	58.3
	N = 2307	N = 912	N = 1719	N = 933

Legend: 1974 Germany: 1974 German Cross-Section Sample
 1980 Germany: 1980 German Panel
 1974 U.S.: 1974 U.S. Cross-Section Sample
 1980 U.S.: 1980 U.S. Panel
 M: Male
 F: Female
 D: Germany

Looking at the age distribution in the cross-section and panel-populations of the two countries no change from 1974 to 1980 is found except for the oldest respondents in the samples. These minor shifts (of 2 and 5 years respectively) can be explained with biological reasons, namely with the increased death-rate or inability to respond after six years which naturally reduces the number of oldest respondents. Aside from these differences, the

age distribution of the panels is virtually identical with the 1974 cross-section samples. There is a greater percentage of respondents in the German sample that was born before 1945. However, this is the case for the 1974 and the 1980 samples.

Table 7-2 Distribution of Respondents Born Before 1945 and After in the 1974 Cross-Section and the 1980 Panel Samples (in Percent)

	1974 D	1980 D	1974 U.S.	1980 U.S.
Born Before 1945	83.5	84.5	74.1	76.5
Born After 1945	16.5	15.5	25.9	23.5
	N = 2307	N = 912	N = 1719	N = 933

Legend: 1974 Germany: 1974 German Cross-Section Sample
 1980 Germany: 1980 German Panel Sample
 1974 U.S.: 1974 U.S. Cross-Section Sample
 1980 U.S.: 1980 U.S. Panel Sample
 D: Germany

When the respondent's education is considered as an indicator of whether the 1980 panel is comparable to the 1974 cross-section sample, only slight differences in the

German data are found. They can be explained with sampling error.

Table 7-3 Distribution of the Variable "Education" in the 1974 Cross-Section Samples and the 1980 Panel Samples (in Percent)

	1974 D	1980 D	1974 U.S.	1980 U.S.
Basic Level	48.1	47.8	4.7	3.3
Lower Level	21.7	23.1	15.0	11.5
Extend. Lower Level	19.3	17.4	16.5	11.9
Middle Level	5.4	5.3	31.0	31.4
Higher Level	5.6	6.4	32.8	41.8
	N = 228	N = 902	N = 1711	N = 929

Legend: 1974 Germany: 1974 German Cross-Section Sample
 1980 Germany: 1980 German Panel
 1974 U.S.: 1974 U.S. Cross-Section Sample
 1980 U.S.: 1980 U.S. Panel
 D: Germany

The differences between the 1980 U.S. panel and the 1974 sample are a little more distinct. Overall, there is a shift toward a higher level of education among the respondents in the 1980 panel sample. The shift is not dramatic and there are several possible reasons for this. The nature of panel data -- it is not unusual that the respondents of a second wave of a panel sample are better educated than the first wave. Another possible explanation is the higher likelihood of finding respondents with a higher level of education after 6 years. They are more likely to be home-owners and also more likely to have jobs of higher status which makes it easier to trace the individuals.

The variable social class also shows that the differences between the panel population in 1980 and the 1974 cross-sectional population are marginal for both countries (Table7-4).

Table 7-4 Distribution of the Variable "Social Class" in the 1974 Cross-Section Samples and the 1980 Panel Samples (in Percent)

	1974 D	1980 D	1974 U.S.	1980 U.S.
Working Class	35.0	34.9	40.5	39.5
Middle Class	56.6	55.0	43.0	43.2
Upper Middle Class	8.4	10.1	16.5	17.3
	N = 2275	N = 888	N = 1637	N = 896

Legend: 1974 Germany: 1974 German Cross-Section Sample
 1980 Germany: 1980 German Panel
 1974 U.S.: 1974 U.S. Cross-Section Sample
 1980 U.S.: 1980 U.S. Panel
 D: Germany

The variable well off assesses the financial situation of the respondent's family during the pre-adult years from 10 to 16 years of age. More respondents who described the financial situation during the pre-adult years as "very difficult" are represented in the American and German 1980 panels. (Table 7-5) The differences between the 1974 and

1980 U.S. samples are marginal (3.2%) and smaller than in the German case (9.2 %).

Table 7-5 Distribution of the Variable "Well Off" in the 1974 Cross-Section Samples and the 1980 Panel Samples (in Percent)

	1974 D	1980 D	1974 U.S.	1980 U.S.
Well Off	8.0	11.2	4.9	4.6
Fairly Well Off	47.4	32.6	29.8	28.4
Difficult	32.2	34.4	46.1	44.6
Life Very Difficult	12.5	21.7	19.2	22.4
	N = 2207	N = 898	N = 1534	N = 929

Legend: 1974 Germany: 1974 German Cross-Section Sample
 1980 Germany: 1980 German Panel
 1974 U.S.: 1974 U.S. Cross-Section Sample
 1980 U.S.: 1980 U.S. Cross-Section Sample
 D: Germany

7.2. Conclusion

Overall, it can be said that the demographic and social characteristics of the German and American 1974 cross-sectional sample and the follow-up panel interviewed in 1980/81 are very similar and therefore also comparable. In addition to the selected variables that were described above, frequencies of other social and demographic variables were run. These yielded similar results. Thus, the 1974 data and the 1980 panel data can be used for the analysis with very few precautions and the 1980 panel does not have to be weighted with regard to any of the demographic variables.

8. The Model

In this chapter the model that underlies Inglehart's analysis will be described. Furthermore, ways to operationalize this model for an empirical analysis will be suggested. The model then be subjected to a quantitative analysis using the data that were described above. The following model is taken directly from Inglehart's book The Silent Revolution:³²

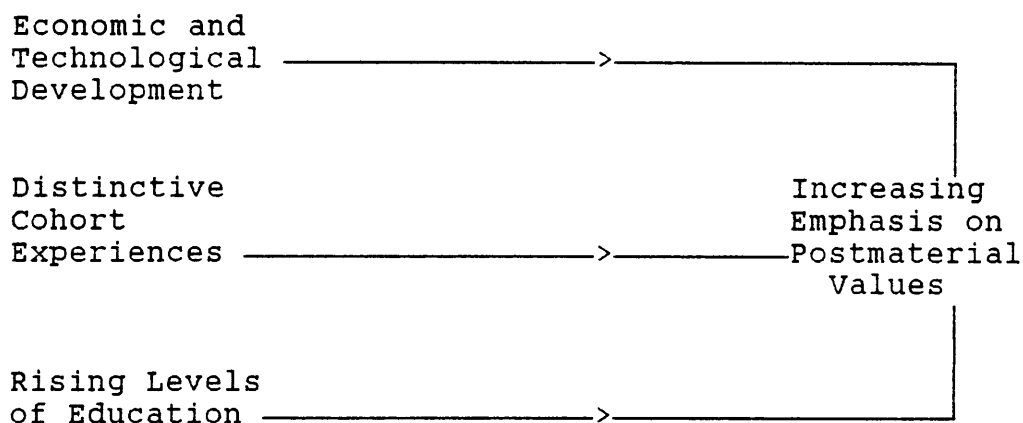


Figure 8-1 The Inglehart Model of Value-Shift

Inglehart argues that there are three main factors that promote the increased emphasis on postmaterial goals:

³² Inglehart, 1977, p.5.

a) economic and technological development, which is said to satisfy the sustenance needs for an increasingly large proportion of the population; and b) distinctive cohort experiences. He maintains that the people who grew up after World War II and the Great Depression develop post-materialist values because they didn't have to live through a "total war" and times of severe economic shortages; and c) the rising levels of education which contribute to rising levels of postmaterialism.

8.1. Operationalization

This model will be operationalized in the following sections since the aim of the analysis is to find out whether it predicts postmaterialism both in the United States and West Germany. If this model is valid, the change over time should not be dramatic, and the differences between the 1974 cross-section population and the 1980 panel sample should be minor. Postmaterialism should be the same phenomenon because the same people are interviewed again while allowing for unspecified life-cycle and periodic effects. The statements that were made concerning

the nature of postmaterialist values would be true over time for both countries alike. This would demonstrate that the indicators used to predict postmaterialism are reliable tools across the different populations. It has been said before that the demonstration of homogeneity in subpopulations is one of the goals of a "most different systems" research design. In the next sections descriptions of the dependent and the independent variables are given, and it will be shown why they are helpful to operationalize Inglehart's models.

8.1.1. The Dependent Variable

As the dependent variable and a measure of postmaterialist values a ten-point index designed to measure materialist/ postmaterialist value orientations, that was developed by Inglehart in the Barnes and Kaase "Political Action Study I", will be used. This index is based on questions concerning valued political goals. The respondents had to rank the goals according to the importance they placed on them. The lowest score on the index stands for materialism, while the highest score

represents a "pure" post-materialist value orientation. This index was used in both Political Action studies.³³ The 4-point index whose frequency distribution is given and described here is simply a collapsed version of this 10-point index. The 4-category-index was described since it shows the distribution of different types of respondents more clearly. It categorizes four different value types: materialists, mixed type respondents who have a tendency toward materialist goals, mixed type respondents who have a tendency toward postmaterialist goals, and postmaterialists.³⁴

The distribution of the variable postmaterialism shows two different patterns. In 1974 there were more postmaterialists and less materialists in the American

³³ The index of Materialist/Postmaterialist value orientations follows earlier work of Inglehart and is based on two sets of questions. These two sets asked respondents to rank the most important possible political goals. These goals were classified by the researchers as either "materialist" or "postmaterialist". For the ten-point values index the number of the important postmaterialist goals mentioned was combined with the number of the important materialist goals. For a complete description of how the index was constructed, see: Barnes, Kaase, et. al., 1979, pp.564-566.

³⁴ For a description of how the indices were constructed, see: Barnes, Kaase, et.al., 1979, p.564-566.

sample than in the German sample. In 1980 this distribution was reversed and one finds more post-materialists and less materialists in the German sample than in the U.S. sample. Overall, the postmaterialists are clearly a minority in both years and both samples while the materialists are the dominant majority.

Table 8-1 Distribution of the Variable Postmaterialism in the 1974 Cross-Section and the 1980 Panel Samples

	1974 D	1980 D	1974 U.S.	1980 U.S.
Materialist	55.3	49.9	39.4	46.2
Mixed Type Materialist	27.6	26.5	31.3	33.4
Mixed Type P-Material.	11.1	13.2	19.7	14.5
Post-Materialist	6.0	10.4	9.6	5.9
	N = 2273	N = 878	N = 1671	N = 904

Legend: 1974 Germany: 1974 German Cross-Section Sample
 1980 Germany: 1980 German Panel Sample
 1974 U.S.: 1974 U.S. Cross-Section Sample
 1980 U.S.: 1980 U.S. Panel Sample
 D: Germany

8.1.2. The Independent Variables

As independent variables four indicators were chosen. They represent the three kinds of influence on political values in the post-industrial society as defined in Inglehart's model which was described at the beginning of Chapter 8. These variables are: education, age, family income and the family's financial situation when the respondent was growing up (well off). The variable education categorizes the respondent's attained level of education and ranks it from the lowest level of formal education to the highest.³⁵ This variable is supposed to represent the "rising levels of education" i.e., it is hypothesized that a higher level of education is conducive to higher levels of postmaterialism. Inglehart also argues that the absence of a "total war" during the past generation contributes to the rising levels of postmaterialism as a distinct cohort experience. This distinctive cohort experience can be expressed with the

³⁵ An index that was also developed by Barnes, Kaase, et. al, is used. It collapsed the country-specific code categories in order to provide a cross-nationally comparable index. For a detailed description of how this index was created, see: Barnes, Kaase, et. al., 1979, pp.584-588.

help of the age variable. However, this variable which consists of the birth year of the respondent needs to be recoded, in order to minimize the life-cycle effects. Since Inglehart argues that the absence of the total war experience is the decisive factor for the cohort experience, the age variable was collapsed and dichotomized. In the first category those respondents who were born before 1945 were included. The second category consisted of those individuals who were born 1945 or later. An individual who was born in 1945 or later did not experience the total war and should, therefore, have a higher level of postmaterialism. Those persons who were born between 1940 and 1945 could have been included since their formative years were also after World War II. However, it appeared more reasonable not to include them after all, because of the postwar situation in Germany (especially), but also in the United States. It is assumed that the years until the beginning of the 1950s also had effects that are very conducive to materialist value orientations. People who were born in 1945 didn't experience their formative years until the 1950s. It is thus hypothesized that being born after 1945 and not experiencing the total war increases the likelihood of a

post-materialist value orientation.

It had initially been planned to use three variables to represent the economic and technological development, which supposedly leads to a satisfaction of sustenance needs for increasingly large proportions of the populations, but this number was reduced to two. The variables were family income, personal income and a variable that asked the respondent about his/her family's situation when growing up.³⁶ However, only family income was used as an indicator of current economic well-being because of its broader scope.³⁷ It also includes people whose family income is high but whose personal income is low, which is often the case for college students and

³⁶ The respondent was asked whether the family was financially well off, fairly well off, had some financial difficulties, or whether life was very difficult when he/she was growing up. An ordinal scale was used to categorize the responses where the highest value represented that life was very difficult. A recode of the variable was used so that the highest value stands for "well off" since it is assumed that a better financial situation at home contributes to post-materialist value orientations. To facilitate the use of the variable name it will subsequently be called "Well Off".

³⁷ The variable 'family income' consists of an ordinal scale that categorizes different income levels. For the German sample the monthly net income was coded, while the American survey asked for the yearly net income. For the complete listing of the categories, see the Appendix.

similar groups who don't have their own income but enjoy the economic advantages the family can provide. It is hypothesized that a) the higher the family income, the higher the level of post-materialist value orientations, and b) the better off the family was during the preadult years of the individual, the more likely is the individual to have post-materialist values. There are no variables that measure technological development; consequently this dimension is not operationalized in the model.

8.2. Conclusion

It should be noted that all variables included in the operationalization of Inglehart's model correspond to the scarcity and socialization hypotheses of his theory. Moreover, close attention was paid to operationalize his model as authentically as possible. It is assumed that this operationalization provides the opportunity to examine whether the population of his analysis is indeed homogeneous.

9. Testing the Model

Inglehart identifies three factors that cause postmaterialist values: rising levels of education, a distinctive cohort experience and the economic security of an individual. An individual with a higher level of education, who didn't experience World War II and the Great Depression, and who experienced a high level of economic security should, according to Inglehart, display higher levels of postmaterialism. Whether this is indeed the case will be analyzed with the help of aggregate individual-level data. Moreover, it will be asked whether these indicators are equally important in two different countries; the United States and West Germany. This kind of comparative research can help to determine the validity of a model like Inglehart's.

This part of the thesis will deal with the actual analysis of the American and the German data by subjecting the operationalized Inglehart model to a quantitative analysis. Firstly, the 1974 cross-section samples will be analyzed and it will be described whether there are any differences between the two countries with regard to postmaterialism. Furthermore, an assessment of the

explanatory power of Inglehart's model will be given. After a description of the results of the analysis with the 1974 data, the analysis of the 1980 panel-data will be described and it will be determined whether there have been any changes in the nature of postmaterialism since 1974 and what these changes are.

The quantitative analysis consists of an examination of the bivariate correlations of the variables in the model and a multiple regression analysis. The postmaterialism index is used as the dependent variable and age, education, family income, and Well Off will be utilized as the independent variables. Regression analysis is an appropriate tool for my analysis mainly because it is performed with variables that are likely to be correlated. The family's income and Well Off are certain to be correlated with age and education. Multiple regression analysis is an ideal tool to single out the unique effects of each independent variable on the dependent variable and thus find out whether it is uniquely or independently associated with value orientations. It also enables the researcher to assess the overall explanatory power of the model i.e., how much of the variance in the dependent variable is actually explained by the model that will be

used for the analysis. Thus, the validity of the predictive model can be estimated. Pedhazur points out the differences between predictive and explanatory analysis:

The distinction between predictive and explanatory research is particularly germane to the valid use and interpretation of results from regression analysis. In predictive research, the goal is to optimize prediction criteria such as income, social adjustment, election results, academic achievement, or delinquency. Consequently the choice of variables in research of this kind is primarily determined by their contribution to the prediction of the criterion.³⁸

The variables in a predictive model are not designed to cause, but rather predict change in the independent variable. In a predictive model it is possible to exchange the dependent and the independent variable -- something a causal model does not allow.

9.1. The Statistics

In this section a description of the kinds of statistics used in the analysis will be given and their importance and value will be explained. The statistics that will be elaborated upon are the standardized and the

³⁸ Pedhazur, 1982, p.136.

unstandardized beta coefficient as well as the R-square. The beta coefficient indicates the expected change in the dependent variable associated with a change in the independent variable under consideration, while controlling for the effects of the other independent variables.³⁹ In contrast to the unstandardized beta coefficient, which is dependent on the scale of measurement, the standardized beta is scale-independent. Since the magnitude of the unstandardized beta is scale-dependent, it should only be used when it makes intuitive sense i.e., when the variable measures something in time, feet, etc., and a change in one unit of the independent variable causes a certain amount of change in the dependent variable or for a comparison across different samples. For this analysis the unstandardized betas will be used to assess the predictive power of the variables in the models under consideration across samples. In order to assess the relative importance of a variable within a sample one needs to look at the standardized betas. Their only drawback is the dependence of betas on the sample, and thus they should not be used to make comparisons across different populations.

The other statistic utilized is the R-square. The R-

³⁹ Pedhazur, 1982, pp.59,64.

square indicates how much of the variance in the dependent variable is explained by the independent variables in the model. A low R-square means that the model is not very useful in predicting change in the dependent variable.

Before analyzing the results of the multiple regression analysis, the bivariate correlations between the variables in the model will be examined because they give an indication of whether the relationships are indeed in the direction as hypothesized by the theory and also because assumptions of multicollinearity can be addressed.⁴⁰

9.2. Correlations in the 1974 Samples

The correlations in the 1974 samples indicate that the model is not extraordinarily powerful to predict postmaterialism in the United States and West Germany.

In correlation matrices for both countries one finds that most correlations are in the hypothesized directions. The few exceptions are statistically insignificant but

⁴⁰ For the correlation matrices described in this chapter, see Appendix A.

substantively noteworthy. It should be noted that the correlations of the postmaterialism index with the independent variables are surprisingly small in the American sample and only a little greater for the Germans. Postmaterialism and family income are very slightly negatively correlated in the United States while postmaterialism is slightly negatively correlated with Well Off in the German sample. This would indicate that, contrary to Inglehart's theory, an economic situation that is not very positive encourages postmaterial values. However, the size of the negative relationship is negligibly small and indicates that there is hardly any correlation at all (-.053 post-materialism and family income in U.S. sample | -.039 post-materialism and Well Off in German sample). In contrast to this, the correlation of Well Off and postmaterialism is very small and positive (.055) in the United States and family income and postmaterialism correlate positively in West Germany (.174). In both samples, the strongest correlations of postmaterialism with an independent variable can be found between education and postmaterialism (U.S.: .129 | Germany: .309). The correlations between the independent variables are negligible; overall they are greater in the

U.S. sample than in the German one. Thus, there is hardly any multicollinearity between the independent variables in the model. It needs to be mentioned again that age and education are correlated with postmaterialism as hypothesized whereas the correlation-results of postmaterialism and the economic indicators are contradictory.

9.3. Correlations in the 1980 Samples

The correlations of the 1980 panel data show a very similar pattern. In the German sample the correlations are almost identical with the ones of the 1974-data, the only exception being that the slightly negative relationship between postmaterialism and Well Off is slightly positive in 1980 (.025) but again negligible. The size and the direction of the other correlations in the 1980-sample are close to the ones found in the 1974 sample. The matrix didn't change too much in the American sample either. The correlations of postmaterialism with the other variables are even lower and the relationship between education and age seems to have disappeared. And again family income, the other economic indicator, and postmaterialism show a

slightly negative relationship (-.059). Overall, it can be said that the collinearity found is negligible.

The correlations are in both the 1974 and 1980 samples greater for the German than the American populations which leads to the conclusion that the model is better suited to predict postmaterialism in Germany than in the United States. However, the correlations in the German sample are only of moderate size.

9.4. Regression Analysis

The results that an analysis of the operationalized version of Inglehart's model yields, are relatively low, as the analysis of the correlations already indicated. Moreover, there is a clear difference between the two countries under consideration: the model fits the German sample somewhat; it doesn't seem to fit the American data at all.

9.4.1. Inglehart's Model and the 1974 Data

After regressing the four independent variables: education, age, family income, and Well Off on the dependent variable, postmaterialism, for the 1974-data, all four variables are significant at the 0.05 level, when the German sample is considered. Well Off was not even significant at the 0.1 level as the American data were analyzed. The strongest predictor of postmaterial values in both countries is the respondent's education. Moreover, age is the second best predictor of postmaterialism in both countries. In Germany, it is much less of a powerful predictor than education (beta = .161). In the American equation, the beta weight of .113 is close to the .152 of education, and it should be noted that all variables in the German equation have higher unstandardized beta weights than the predictors in the American sample. The variable family income is almost as powerful a predictor of postmaterialism in the U.S. as age. However, the direction of the relationship is contrary to the hypothesis (beta = -.108). This would mean that, in the U.S., the lower the family income, the more postmaterialism we find. Something similar can be said for the German case about the variable

Well Off. The beta weight of $-.095$ indicates that the worse off the respondent felt his/her family was during the individual's youth, the more post-materialist the person is. However, a beta-weight of $-.095$ is low. The variable family income is the weakest predictor (beta= $.068$) for the postmaterialist value orientations in Germany, whereas the variable well off is highly insignificant in the American model.

These results seem to suggest that education and age are the best predictors of postmaterialist values in Germany and the United States in 1974 independently of each other. This is similar to the findings of other researchers if the postmaterialist goals as expressed in the survey questions are regarded as goals that describe democratic principles and civil liberties. "Free speech", "more say on job, community", and "more say in government" are examples of democratic principles that are part of the post-materialist values. It has been shown earlier research that tolerance for civil liberties is the product of a learning process and that education is an extremely good predictor of support for civil liberties.⁴¹

⁴¹ McClosky and Brill, 1983; Prothro and Grigg, 1960; Gibson and Bingham, 1982; Sullivan, Piereson and Marcus, 1982.

The fact that education and age are good predictors of postmaterialism would mean that two parts of Inglehart's theory hold true, namely that the absence of a total war experience and the rising levels of education contribute to increased levels of postmaterialist value orientations. However, the economic indicators do not fare very well at all and even show relationships whose directions are contrary to the hypotheses or are too weak to be significant at the 0.1 level (U.S. sample).

Table 9-1 Predicting Postmaterialism in Germany and the United States in 1974

	EDUC	AGE	WELL OFF	F-INCOME	R-Sq	IC
D	S .267 * U .498	S .161 * U 1.087	S -.095 * U -.251	S .068 ** U .058	.132	2.923
SE	(.044)	(.150)	(.058)	(.020)		
U.S.	S .152 * U .284	S .113 * U .639	S .004 U .011	S -.108 * U -.055	.043	3.942
SE	(.061)	(.166)	(.083)	(.016)		

Legend: EDUC = Education
 AGE = Age
 WELL OFF = "Well Off"
 F-INCOME = Family Income
 IC = Intercept
 SE = Standard Error
 S = standardized beta-coefficient
 U = unstandardized beta-coefficient
 D = Germany

* significant at the 0.01 level
 ** significant at the 0.05 level

But the regression analysis also yields another interesting result; one that is at least as important as the finding that education and age are the best predictors of postmaterialism. When we look at the R-squares, which tell how much of the variance in the dependent variable, postmaterialism, is explained by the independent variables, enormous national differences are detected. The Inglehart model explains more than 13 % of the variance in postmaterialism in Germany (R-square = .132) but only 4 % in the United States (R-square = .043). The R-square of .132 for the German sample is not overly impressive, but compared with the .043 for the American data, it is still acceptable. This seems to suggest that the Inglehart model is not overly useful to predict postmaterialist value orientations in the United States in 1974. The question remains, however, whether this is the case only in 1974 or whether the model has comparable effects in 1980. However, there may be other reasons as well for these low results. It may be that systematic measurement error distorts the quantitative analysis of the survey data or that the model is inadequate because of the way it was operationalized.

In the following section the quantitative analysis of the

1980 panel-data will be described. For this analysis, the same operationalization of the model was employed in order to make comparisons with the scores that were obtained from the analysis with the 1974 cross-section data.

9.4.2. Inglehart's Model and the 1980 Data

The results for the 1980 panel data resemble the results that were obtained from the analysis of the 1974 surveys. Again, education is the strongest predictor of postmaterialism in both countries and again age is the second best predictor in West Germany with a standardized beta coefficient of .120. However, in 1980, age is not a sufficiently powerful predictor of American postmaterialism to be significant at the 0.05 level and be included in the final regression equation. This finding is plausible. The "total war" experience was never as severe and intensive in the United States as it was in Germany since the war did not take place on American territory. Moreover, the reduced sample size may have some impact on the significance of the variables.

Again, one of the economic indicators is not very

significant at all as a predictor of American postmaterialism; in this case the variable well off. However, well off is virtually insignificant for predicting postmaterialism in Germany with a beta-weight of $-.059$ (not significant at the 0.05 level). The second best predictor of American postmaterialism in 1980 is the family income, whose direction is again contrary to the expectations of the theory. This means that the lower the income of the respondent's family, the more postmaterialist the respondent is. Family income, which was the weakest predictor of German postmaterialism in 1974 is too weak to make a significant contribution to the explanatory power of the model in 1980. Again, with the exception of family-income, the unstandardized beta-weights are of greater size in the German data.

Table 9-2 Predicting Postmaterialism in Germany and the United States in 1980

	EDUC	AGE	WELL OFF	F-INCOME	R-Sq	IC
D	S .348 * U .691	S .120 * U .777	S -.058 U -.146	S .043 U .038	.160	2.781
SE	(.074)	(.228)	(.088)	(.032)		
U.S.	S .149 * U .284	S .045 U .000	S .008 U .021	S -.127 * U -.051	.024	3.621
SE	(.075)	(.000)	(.094)	(.015)		

Legend: EDUC = Education
 AGE = Age
 WELL OFF = "Well Off"
 F-INCOME = Family Income
 IC = Intercept
 SE = Standard Error
 S = standardized beta-coefficient
 U = unstandardized beta-coefficient
 D = Germany

* significant at the 0.01 level

Again, in 1980 as well as in 1974, education is the best predictor of postmaterialist values in both countries and age is the second best predictor in the German case. The strength of the economic predictors is questionable at best and their directions are even contrary to Inglehart's hypotheses. The R-square gives an even clearer picture of the power of the operationalized Inglehart-model. In Germany an increased 16 % of the variance in post-

materialism is explained by education, age, and the family's financial situation when the respondent grew up (R-square = .161). For the United States the model fails. Education and family income explain little more than 2 % of the variance (R-square = .024).

9.5. Conclusion and Alternatives

There are two main findings from the analysis described above. First, Inglehart's model, as operationalized, is not a very powerful one. It fails to predict postmaterialism in the United States and is only modestly successful to predict postmaterialism in Germany. Its predictive power increases somewhat for the German data from 1974 to 1980 but decreases for the American samples. Second, the independent variables do not have the same effect at both times in both countries. Education is the only "safe" predictor of postmaterialism in the United States and West Germany in 1974 and 1980 which may be due to an increased tolerance of civil liberties. It seems as though there were other effects that have an influence on the fragile predictive power of the model that was

employed. It should be mentioned that there is a possibility that the results we obtained are distorted by the operationalization of the variables. Therefore, another analysis was run with the same variables which were newly recoded.

9.6. The Alternative Analysis of Inglehart's Model

Giving Inglehart's model and its applicability the benefit of the doubt, the variables in the Inglehart-model were recoded and a new regression analysis was run. The theoretical model was left untouched because it was possible that the low scores of the first quantitative analysis were due to faulty operational definitions.

For the dependent variable postmaterialism, instead of the 10-point-issue index the collapsed 4-point index that has been derived from the 10-point scale was employed.⁴² This index classifies respondents as materialists, postmaterialists, and as two mixed types depending on how many materialist or post-materialist goals they chose. The

⁴² For a complete description of how the 4-point index was constructed, see Barnes, Kaase, et.al., p.564-566.

mixed types are not "pure" materialists or postmaterialists as respondents chose both postmaterialist and materialist goals, but tend toward one of the extremes. This index was then dichotomized and dummy-coded into postmaterialists and others. The post-materialist category includes the "pure" postmaterialists and the mixed-type respondents with a tendency toward postmaterial goals. Using this variable as the dependent variable made a comparison of the two extremes, postmaterialists vs. materialists, possible since it was possible that the 10-point-index may include too many respondents who lack any direction toward either extreme and therefore distort the substantive findings that were obtained.

The variable Well Off was also dichotomized and dummy-coded. The reason for this is similar to the reason for the recode of the dependent variable, postmaterialism. Since the variable asks the respondent to recall the family's situation during the pre-adult years, it is possible that the recollections are partly distorted and biased by the respondents perceptions. Only the two opposite groups (the ones that were well off and the ones that were not well off) were compared in order to ensure that the bias introduced by the nature of the variable was minimized. The

people who were well off and fairly well off now comprise one category while the respondents whose life was difficult to very difficult make up the other category.

The variable family income was also recoded. This recode has the advantage of providing comparable income categories and also minimizing an eventual bias in the data. It is possible that a number of respondents indicated a higher family-income than true or that the respondent was not really sure how high the family-income really was. For the German data two adjacent income categories were subsumed under one new category so that the number of categories was halved to five. For the American data three income categories were subsumed under one so that instead of eighteen categories there are now six.

The variable age was left unchanged from the prior operationalization because the logic of Inglehart's argument doesn't allow a coding much different from the one that was used before. There are two groups of respondents: the ones born before 1945 and the ones born after 1945.

For this new analysis only the 1974 data is used. It needs to be mentioned that the kinds of recodes used are likely to yield lower statistical scores because the variance of the recoded variables was reduced. However, it

is the aim of this additional analysis to find out whether an analysis with the newly coded variables yields results that substantively contradict the findings that were described before. Lower statistical results should therefore not come as a surprise, but shouldn't contradict the prior findings.

Table 9-3 Predicting Postmaterialism in The United States and West Germany in 1974 with an Alternative Model

	Education	Age	Well Off	Family Income	R-Sq	IC
U.S.	S .142 * U .053	S .081 * U .090	S -.021 U -.019	S -.139 * U -.043	.038	.244
SE	(.012)	(.033)	(.027)	(.009)		
D	S .239 * U .075	S .133 * U .153	S .082 * U .060	S .049 ** U .015	.098	-.074
SE	(.008)	(.026)	(.017)	(.007)		

Legend: IC = Intercept
 SE = Standard Error
 S = standardized beta-coefficient
 U = unstandardized beta-coefficient
 D = Germany

* significant at the 0.01 level

** significant at the 0.05 level

An analysis of the regression coefficients and the R-square in Table 9-5 suggests that the findings of the

earlier analysis remain valid. Education is still the most powerful predictor of postmaterialist values when this model is employed (Germany: beta = .239 | U.S.: beta = .142). Age is the second best predictor in the German case (beta = .133) while family income is the second best one in the American model (beta = -.139). And again, a lower family income, and not a higher one as had been hypothesized, correlates with a higher level postmaterialism in the United States. Aside from the fact that the indicators had the same rank order of importance for predicting postmaterialism with the new model regardless of the new coding, it is detected that the overall predictive power of the model for American postmaterialism is again weak (R-square = .038).

Even though the explanatory power of the newly coded model was reduced to an R-square of .098 in the German case, as expected by the loss of the variance in the predictors and the dependent variable, it still means that approximately 10 % of the variance in German postmaterialism could be explained with the model. In the German sample, all predictors have greater unstandardized beta-coefficients than their counterparts in the American data, the only exception being family income which is more

powerful to predict American than German postmaterialism. In this analysis of the U.S. sample both economic predictors have a negative correlation with postmaterialism, a finding that lends support to the previous conclusion that there seems to be a problem with the predictive power of economic indicators for American postmaterialism.

This leads to the following conclusion. Since the model is not sufficient to predict postmaterialism in either country under consideration, and since different variables have a different predictive power in the two countries, a new model must be developed for predicting postmaterialism in the United States and West Germany. An attempt to find out what the factors are that explain postmaterialist value orientations in both countries needs to be made. It seems to be evident that the operationalized model was underspecified. Other factors that possibly influence the respondent's expression of preference for certain political goals must be taken into consideration.

10. A New Model

It was found that the operationalized Inglehart model that included the variables age, education and two economic variables is helpful to predict postmaterialism in Germany, but less powerful to predict postmaterialism in the United States. What may be the reason? It is possible that the nature of postmaterialism, as defined by Inglehart, differs in West Germany and the United States. The frequency distribution of political values that was described before showed that there are similar levels of postmaterialism in both countries. Or could it mean that postmaterialism is indeed identical in the two countries, but is influenced by other factors than the ones in Inglehart's theory? It should also be taken into account that the relationships of the variables that have been examined so far are distorted by measurement error. Since the R-square is far from perfect in the German case and even less so in the American case, it is suggested that the model is underspecified for both countries. However, the degree of underspecification seems to differ substantially. It is assumed that the model is much more heavily underspecified for predicting American than German postmaterialism.

In the following section, other factors that might be associated with the development of postmaterial value orientations will be proposed. Inglehart suggested that the individual-level value shift has system-level consequences. Variables that are similar to these system-level consequences will be operationalized. Subsequently, it will be determined whether these proposed variables are actually good enough predictors of postmaterialism in the United States. It is hypothesized that these factors prove valuable in predicting postmaterialism in the United States. If they do not, the reasons for this will have to be examined. These variables, that are supposed to be helpful for predicting American postmaterialism, will be described. In case the predictive power of these variables (as expressed in the R-Square) exceeds the predictive power of the original model, consideration must be given to amending the German model as well.

The analysis will be performed only with the 1974 cross-section data because it has a larger number of cases than the 1980 cross-section data. Since the focus is merely on the predictive power of the indicators and not their change over time it is sufficient to perform the analysis at one point in time; data collected in 1980 should yield

the similar results.

10.1. The Indicators of the New Model

The following factors will be used to predict post-materialism in the United States, together with the four variables that were used as an operationalization of the Inglehart model: partisan preference, interest in politics, protest activity, and membership in a civic group. It is assumed that each of the variables help to predict postmaterialist values. As the dependent variable the 10-point index of postmaterialism was used.

10.1.1. Party Preference

As Savage points out, the policy goals that are used to construct the postmaterialism index may also be interpreted as belonging to the left and right dimension.⁴³ Inglehart indicates that postmaterialist goals are mainly

⁴³ Savage, 1985.

brought forward by the political left."⁴⁴ An individual who identifies with a political party supports its goals. However, the ideology and goals of a political party of the left are not identical with post-materialist goals. In the United States and also West Germany postmaterialist goals have become part of the issue agenda of the major left parties or are associated with them. However, it is hypothesized that they have not become part of the issue agenda because they are logically related to the socialist ideology or liberal ideas of economic equality, the role of government in society, or workers' rights.⁴⁵ It is assumed that the Democratic Party places a greater policy-emphasis on goals like the protection of the environment, disarmament, employee participation in the decisions of a company, and possibilities for more citizens to participate in politics (automatic voter registration), for example. A respondent who supports a party with an issue agenda that includes goals that are similar to post-materialist goals should consider more postmaterialist goals as important than somebody who supports a party that only promotes non-

⁴⁴ Inglehart, 1977, p.240-243.

⁴⁵ "Liberalism" is here used in the American meaning as opposed to the definition of classical liberalism.

postmaterialist goals. It should be made clear that the causality is not unidirectional but rather constantly working in both directions. Postmaterialists support parties of the old left because the parties advance postmaterialist policy goals. On the other hand, the fact that parties on the left have started to advance postmaterialist goals makes the individual supporter more likely to identify with these goals and develop a postmaterialist value orientation. It may also be that the support for post-materialist goals is therefore only temporary in some cases since the supporters of political parties are past their formative years and, according to the socialization hypothesis, have already developed their "long term" political values.

The measurement instrument that is used in the analysis consists of an index that categorizes the political preference of the respondent into "left", "center", and "right". In the German case "left" stands for the Social Democratic Party (SPD), "center" for the Free Democratic Party (FDP), and "right" for the Christian Democratic Union (CDU). In the American case there are only two categories, where "left" stands for the Democratic Party, "right" stands for the Republican Party; the independents were left

out of the analysis.⁴⁶ The variable is operationalized as a dummy variable, with 1 representing the Democratic Party and 0 standing for the Republican Party.

It is hypothesized that respondents who prefer the Democratic Party are more likely to have postmaterialist values than those who support the Republican Party in the United States.

10.1.2. Interest in Politics

The variable "political interest" consists of the respondent's indication of whether he/she is very interested, somewhat interested, not much interested, or not at all interested in politics. The more the respondent is interested in politics the higher is the score on the survey instrument. ⁴⁷ In an advanced industrial society the opportunities to take an interest in politics increase

⁴⁶ For a complete description of the measurement instruments, see the Appendix.

⁴⁷ Very interested = 4
Somewhat interested = 3
Not much interested = 2
Not at all interested = 1

steadily. Interest in politics is partly a measure of the technological development and the increased importance of mass media that is part of the post-industrial society, as well as the rising levels of education. The increased availability of controversial opinions and informations concerning politics gives postmaterialists in the media a better opportunity to transmit their goals to somebody who is interested in politics. However, it is more difficult to reach somebody who is not interested in politics. Someone who is more interested in politics and is also well educated has a better understanding of the larger picture of political and societal problems because he/she is more likely to gather information that enables the individual to make sound judgments.

The question of how goals that are classified as "postmaterialist" should be achieved is not part of the 12-question battery of postmaterialist goals so that people with different conceptions of how society should be run can chose postmaterialist goals as important goals. Interest in politics could therefore be an intervening variable correlated with education and the rising levels of technological development. Since there is no variable in the survey that can directly be operationalized as an

indicator of the level of technological development and the increased influence of mass-media, interest in politics is used instead as a substitute. It is assumed that a greater interest in politics is correlated with a higher score on the 10-point postmaterialism index.

10.1.3. Protest Potential

The measure of protest behavior is a measure of the inclination to protest i.e., it expresses a certain set of mind. It can also be understood as one measure aside from conventional political participation that indicates how concerned the individual is with current political issues or the political system as a whole. In most cases protest behavior or unconventional political participation are related to goals that are identical with or similar to postmaterialist goals. Postmaterialism is, in part, a protest ideology. The predisposition to protest in ways that are unconventional and sometimes even illegal is directed against the existing order and structures. Someone who is inclined to protest must have a reason for it. He or she is not satisfied with the way things are run. This

leads the individual to look for alternatives which can be expressed in postmaterialist goals.

Postmaterialist goals can influence the inclination to protest in the first place, but are also important as a repercussion. The respondent is dissatisfied and looks for alternatives to the present state. Today, these alternatives are often expressed in terms of post-materialist goals.⁴⁸ This is to say that an inclination to protest is correlated with a preference for postmaterialist goals. However, it also means that postmaterial goals do necessarily affect protest behavior. In Western societies after World War II, postmaterialist solutions to societal problems have become more and more attractive and available because of the changing societal structures. This may change again and with it would the emphasis on post-materialist goals which is influenced by the inclination to protest. The measurement instrument asked the respondent whether he/she has performed or would perform protest activities. From the answers to these questions an index was constructed.⁴⁹ A higher score on the index stands for a

⁴⁸ This logic is also applied by:
Gurr, 1970; Farah, et.al, 1979; Muller, 1979.

⁴⁹ For the complete listing of the activities and how the index was constructed, see the appendix.

greater protest potential.

The predisposition to protest is related to an emphasis on postmaterial values.

10.1.4. Membership in a Civic Group

Membership in a civic group will also be used as a predictor of postmaterial values. Somebody who is willing to spend time for a civic group is predisposed toward helping the community and improving things that can't or aren't taken care of by the government. Activities performed as a member of a civic group are geared toward others and problems that have generally been neglected. It is assumed that the membership in a civic group is correlated with a higher level of postmaterialist values because of two reasons. First, the postmaterial goals of a less impersonal society, that ideas should count, more say in the community, and protecting the environment are similar to the other-directed values a person who is engaged in a civic group has. Thus, a higher level of postmaterialism should be correlated with active membership in a civic group. Second, the interaction with other group

members, the social process within the group and the satisfaction that is derived from the activity in the group affects the person's value system and may periodically produce other-directed values that make the respondent choose postmaterialist goals over non-postmaterialist goals when asked in a survey.

It should be emphasized that a civic group is a group that deals with projects which in most cases directly affect the community and it may be that there are groups that are better suited to measure this kind of social activity. The code books don't disclose which groups the survey researchers of the Political Action studies regarded as civic groups. However, they distinguished them from other related groups.⁵⁰ The survey instrument simply asked whether the respondent was a member of the organization named, and, if yes, whether he/she was not very active, fairly active, or very active. The more active the respondent was in a civic group, the higher is the score on a scale that ranged from 0 (not a member) to 3 (very active

⁵⁰ These groups are:
fraternal lodges, business associations, professional associations, farm organizations, church organizations, neighborhood organizations, political parties or clubs, charity organizations, special interest groups, youth clubs, racial/ethnic clubs.

member). Thus, it is not only the pure membership that is already correlated with postmaterialism, but also the intensity-level of the individual's activities. A very active member should have a higher level of postmaterialism than a not so active member even though they are both members of the civic group.

10.2. Analysis of the New Model and Postmaterialism in the U.S.

The alternative model now consists of eight independent variables and the dependent variable, postmaterialism. The independent variables are age, education, family income and well off from the original operationalization of the Inglehart theory, and interest in politics, protest behavior, party preference and membership in a civic group as the new independent variables. Before the results of the regression analysis with the U.S. data are analyzed, selected correlations between variables in the model will be examined.

10.2.1. Bivariate Correlations of the Variables
in the New Model

The bivariate correlations of the independent variables with the dependent variable seem to indicate that the predictors of postmaterialism newly brought into the model, interest in politics, protest potential, and partisan preference, are more powerful than the ones in the original model. The three strongest correlations of independent variables with postmaterialism are between protest potential (.259), partisan preference (.132), interest in politics (.124) and the dependent variable, postmaterialism. Age (.095), education (.097) and the economic predictors are only weakly correlated with postmaterialism. Again, family income is related negatively with postmaterialism (-.056) but the size of the correlation is extremely small. The highest correlation among the independent variables exists between family income and education at .441. Education is also moderately correlated with protest behavior (.357) and it seems to be the case that people who are active protestors are interested in politics (.230) and come from families with a high family income (.265). Also, interest in politics and

education seem to go together which is demonstrated by a moderate correlation of .284. Overall, the correlations are of small to moderate size and they all have the hypothesized direction with one exception that has already been noted earlier: family income and postmaterialism are correlated negatively which would mean that a lower family income goes with postmaterialist values. It is concluded that there is moderate to small multi-collinearity in the sample between the predictors in the model.⁵¹

10.2.2. Regression Analysis of the U.S. Data with the New Model

The new model was run with the 1974 U.S. cross-section data and it can be said that it yielded satisfactory results. An R-square of .107 indicates that nearly 11 % of the variance in the dependent variable postmaterialism was predicted by the variables in the model. This more than doubles the explained variance attained with the original model and a step towards a more powerful model was made. It

⁵¹ For the complete correlation matrix, see the appendix.

is notable that two variables of the original model, namely age and well off are highly insignificant for the prediction of American postmaterialism (beta of age = .020 | beta of well off = .017), even though well off was entered into the equation first. The importance of the "total war" experience for the prediction of postmaterialism seems to be less than expected, a finding that has already been noted before. The influence of the family's situation is moreover balanced and reduced by the other factors in the model. The best predictors of American postmaterialism are (in descending order): protest behavior, family income, party preference, interest in politics, education and membership in a civic group. These findings may weaken Inglehart's model but are entirely plausible.

The most significant predictor, protest behavior (beta = .246), seems to suggest that an important part of American postmaterialism is played by the inclination to protest. However, this protest potential is not displayed by individuals from wealthy families but rather by people from families with lower income (beta of family income = -.154). Moreover, American postmaterialists seem to be supporters of the Democratic Party (beta of party

preference = .114), and are more interested in politics than others (beta of interest = .080). The two other variables, education and membership in a civic group are highly insignificant. However, one should be cautious about taking these results at face value and draw premature conclusions since the new model explains only about 11 % of the variance in the independent variable. This means also that there certainly are other factors that account for the variance in American postmaterialism; factors that haven't been considered yet. One must conclude that neither Inglehart's original model nor the revised model is capable of predicting the phenomenon of postmaterialism in the United States.

Two main parts of his theory don't seem to fit the American data. The importance of the unique association of the variable age decreases when other factors are brought into the model. However, age may exercise an indirect influence on postmaterialist values via the other variables in the model. Age seems to play a much more prominent role for predicting German postmaterialism. In addition to that, the claim that economic security predicts increased levels of postmaterialism, is not supported. The predictors that are meant to support this claim, fail. Americans whose

families have scarce resources are more likely to be postmaterialists. This finding contrasts Inglehart's analysis of postmaterialism and socio-economic status.⁵² Inglehart compares the socio-economic status of the respondent i.e., the current economic status, and the socio-economic status of the respondent's father i.e., the formative economic status and arrives at the conclusion that the current economic status is a better predictor of postmaterialism than the formative economic status. However, he finds that a higher economic status is correlated with higher levels of post-materialism while the analysis in this thesis shows that a lower economic status is correlated with postmaterial values.

It can be said that post-materialism in the United States is strongly related with protest potential. Postmaterialists also seem to be people who vote for the Democratic party, are interested in politics, and have a family income that tends to be lower. Moreover, they are engaged in civic groups and well educated. These findings seem to suggest that American postmaterialists are politically relatively sophisticated, but dissatisfied with the current state of affairs. The question now arises,

⁵² Inglehart in Barnes, Kaase, et.al., 1979, p.305-342.

whether this is also the case in Germany or whether German postmaterialism can best be predicted with the help of the Inglehart model. It should be remembered that the predictive power of the Inglehart model for German postmaterialism was greater than the predictive power of the amended model for the United States.

Table 10-1 Predicting Postmaterialism in the United States
With the New Model

WELL OFF	STB	.017	
	USTB	.051	
	SE	(.105)	
CIVIC GROUP	STB	.048	
	USTB	.156	
	SE	(.114)	
PROTEST BEHAVIOR	STB	.246	*
	USTB	.377	
	SE	(.059)	
PARTY PREFERENCE	STB	.114	*
	USTB	.265	
	SE	(.082)	
AGE	STB	.020	
	USTB	.123	
	SE	(.223)	
INTEREST IN POL	STB	.080	**
	USTB	.214	
	SE	(.097)	
FAMILY INCOME	STB	-.154	*
	USTB	-.243	
	SE	(.063)	
EDUCATION	STB	.060	
	USTB	.116	
	SE	(.082)	
INTERCEPT		2.987	
R-SQUARE		.107	

* significant at the 0.01 level

** significant at the 0.05 level

Legend: STB: standardized beta-coefficient
USTB: unstandardized beta-coefficient
SE: Standard Error

10.3. German Postmaterialism and the New Model

When the aforementioned model is used to predict postmaterialism in Germany, correlations that are similar to the ones in the American sample can be found. Protest behavior is somewhat moderately correlated with education (.330), age (.257), party preference (.216) and interest in politics (.299). Aside from these correlations, the strongest relationship exists between protest activity and postmaterialist values at .441. The correlations of interest in politics with family income (.251) as well as education (.361) are other relationships whose sizes are worth mentioning. Family income and education also have a solid correlation at .382. There is a negative relationship between postmaterialism and membership in a civic group (-.128). This would indicate that the theory according to which membership in a civic group correlates positively with postmaterialism, is not supported. Whether these correlations still hold true when other factors are controlled for will be examined in the following part of the thesis.

10.4. Regression Analysis of the New Model
with the German Data

The results that are obtained from an analysis of German postmaterialism with the new model are very encouraging and support the claim that the original Inglehart model as operationalized is not sufficient for predicting the nature of postmaterialism, but is rather intended to explain how a value shift may come about. The predictive power of this new model is more than twice the previous one and now explains 31 % of the variance in German postmaterialism ($R\text{-square} = .313$). There is only one variable in the model that is highly insignificant, namely family income (significance = .3678). There are three predictors that are highly significant and only one of them was already included in the first Inglehart model that had been operationalized. The three best predictors of German postmaterialism are (in descending order): party preference (beta = .258), protest activity (beta = .229), and education (beta = .198). This means that German postmaterialists tend to vote for the Social Democrats, have a latent protest potential, and are well educated. Another predictor that is highly significant and was

entered on step two of the regression procedure is the interest in politics which is, as is shown by the bivariate correlation, positively correlated with education (.361). A German who is very interested in politics tends to have more postmaterialist values than one who is not. It is also worth mentioning that, in contrast to the American model, five of the eight indicators are significant at the 0.05 level. It is interesting to note that membership in a civic group is not associated with post-materialism the way it was hypothesized. In Germany, contrary to the United States, a member of a civic group is less likely to have postmaterialist values than somebody who is not a member. This result may be explained with the nature of civic groups in Germany or the variable itself. It is clear that membership in a civic group can only be representative for social activities and thus may not be a broad enough predictor.

It has been mentioned before that family income is highly insignificant as a predictor of German postmaterialism when other factors are taken into account. This would mean that the part of Inglehart's theory that is concerned with the economic conditions of an individual during the preadult years could not be supported by the

data for a second time with a different model. Not only can it be said in the American case that a lower family income goes with a higher level of postmaterialist values, but we may cautiously claim for Germany too that the more financially deprived the family was, the more likely the respondent is to have postmaterialist values (beta of well off = $-.065$).

The variable age, which constitutes the operationalization of another part of Inglehart's theory, is not as insignificant as in the American analysis, but is still less powerful than all other variables except for family income.

The mere fact that the variance explained in German and American postmaterialism was more than doubled in both countries by employing an amended model seems to indicate a certain inadequacy of the operationalized version of Inglehart's theory of a universal model that is used for predictive purposes. However, there are still differences between the two countries that need to be pointed out. Looking at the four most powerful predictors of postmaterialism, the German postmaterialist favors the Social Democrats, has a latent protest potential, is highly educated and also very interested in politics. In contrast

to this, American postmaterialists, who also have a strong protest potential, are interested in politics and tend to vote for the left, tend to be very heavily influenced by their family income. Moreover, the unique association of the age variable is highly insignificant; whereas it still plays a moderately important role in Germany. Looking at the ranking of the most powerful predictors of post-materialism, it is also clear that protest potential is by far the most important one in the United States, while partisan preference is in Germany, closely followed by protest potential and education. Education is only the fifth best predictor in the American model.

All this seems to indicate that we are dealing with a type of postmaterialist in Germany who is interested in politics, votes left, has a high potential to protest, and is highly educated. A postmaterialist in the United States seems to be primarily a protestor type who comes from a family with less income, votes left and is interested in politics. However, it should always be kept in mind that the predictive power of the model is three times greater for Germany than for the United States. This means that it is very likely that there are other very important factors that influence American postmaterialism; factors that may

be even more powerful than the ones in our present model.

Table 10-2 Predicting Postmaterialism in West Germany
With the New Model

WELL OFF	STB -.065 USTB -.188 SE (.097)
INTEREST IN POL	STB .119 * USTB .304 SE .092
CIVIC GROUP	STB -.084 ** USTB -.565 SE (.220)
AGE	STB .063 USTB .480 SE (.260)
PARTY PREFERENCE	STB .258 * USTB .624 SE (.082)
FAMILY INCOME	STB .032 USTB .062 SE (.068)
PROTEST BEHAVIOR	STB .229 * USTB .341 SE (.055)
EDUCATION	STB .198 * USTB .373 SE (.073)
INTERCEPT	.619
R-SQUARE	.313

* significant at the 0.01 level

** significant at the 0.05 level

Legend: STB: standardized beta-coefficient
USTB: unstandardized bata-coefficient
SE: Standard Error

11. American Postmaterialism and Region

It was found that the two samples upon which the analyses of the Inglehart model and the new model were based in this thesis are not homogeneous with regard to the nature of postmaterialism. The question then arises, why there are differences. It is possible that there are factors that influence whether somebody is a post-materialist or not which are entirely country-specific. Therefore, it will be tested whether these factors do play a role. For this preliminary analysis a regional variable was chosen. One of the reasons why the models were more powerful for explaining postmaterialism in Germany may be the homogeneity of the German society and the German political culture in contrast to the American society and American political culture.

In order to find out whether there are regional differences within the United States that lead to a low predictive power of the variables in the models, the sample was divided into the respondents who live in the southern United States and the ones who do not. The new model that had been used to predict postmaterialism in the United States and West Germany was then subjected to an analysis

of two sub-populations of the 1974 American cross-sectional data. One sub-population consisted of the respondents who lived in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia. This region was classified by Barnes and Kaase as "Solid South". The other sub-population consisted of the respondents who lived in states other than the aforementioned ones.⁵³

It is assumed that the South has its own political subculture that is not conducive to postmaterialism. Therefore, the category "solid South" was used as one group and all other categories were collapsed into non-southern regions.

11.1. Regression Analysis of Two Sub-Populations in the U.S.

Two separate analyses were run to test the hypothesis that the South has its own political culture with a different kind of postmaterialism than in the rest of the

⁵³ For the complete description of the regions, see the Appendix.

United States. Were there no differences between postmaterialism in the South and postmaterialism in the non-South one would conclude that the American sample population is homogeneous with regard to postmaterialism in the South and other regions of the country. One would then have to look for other reasons why there are differences in postmaterialism between the United States and West Germany. However, the results we obtain from these two separate analyses seem to support the claim that the two subpopulations are not homogeneous but rather very distinct.

In both samples there is only small to moderate collinearity among the variables in the model and the highest correlations in both sub-samples are between family income and education (South: .383 | non-South: .451). The finding that postmaterialism and family income are negatively correlated is supported in both samples (South: -.056 | non-South: -.075). Overall the correlations of the independent variables with the dependent variable are higher in the non-South states than in the solid South.

Looking at the results of the regression analysis it is evident that the South seems to be different from the rest of the United States with regard to the nature of

postmaterial values. The predictors of postmaterialism that explained 11 % of the variance in the United States as a whole only explain 3 % of the variance in postmaterialism in the South (R-square = .034). On the other hand the predictive power of the same variables is greater than 13 % when the non-southern states are analyzed (R-square = .136). There clearly seems to be a regional impact on whether these predictors help to explain the variance in postmaterialism. None of the predictors in the analysis of the South is even significant at the 0.05 level whereas at least four of them are when postmaterialism is predicted in the states that don't belong to the South. These predictors are: Protest activity (beta = .265), family income (beta = -.176), party preference (beta = .126), and interest in politics (beta = .092).

It is also interesting to note that the predictors of the originally operationalized Inglehart-model do not fare well at all and belong to the weakest predictors of postmaterialism in the South and the other parts of the United States.

These findings indicate that the variables are not useful at all to predict postmaterialism in the southern United States. On the other hand, protest behavior, family

income, party preference, and interest in politics are helpful to explain the variance in postmaterialism in the non-southern United States.

Table 11-1 Predicting Postmaterialism in the Southern United States in 1974

MEMBER CIV GROUP	STB .051 USTB .177 SE (.256)
PARTY PREFERENCE	STB .119 USTB .317 SE (.201)
PROTEST BEHAVIOR	STB .068 USTB .129 SE (.153)
WELL OFF	STB .007 USTB .019 SE (.224)
INTEREST IN POL	STB .055 USTB .135 SE (.186)
AGE	STB .063 USTB .369 SE (.458)
FAMILY INCOME	STB -.096 USTB -.143 SE (.122)
EDUCATION	STB .035 USTB .060 SE (.145)
INTERCEPT	3.025
R-SQUARE	.034

None of the predictors is significant at the .05 level.

Legend: STB: standardized beta-coefficients
USTB: unstandardized beta-coefficients
SE: Standard Error

Table 11-2 Predicting Postmaterialism in the United States
 -- Except the "Solid South"

MEMBER CIV GROUP	STB .046 USTB .150 SE (.128)
PROTEST BEHAVIOR	STB .265 * USTB .393 SE (.065)
WELL OFF	STB .026 USTB .077 SE (.120)
AGE	STB .014 USTB .086 SE (.259)
INTEREST IN POL	STB .092 ** USTB .253 SE (.115)
PARTY PREFERENCE	STB .126 * USTB .287 SE (.093)
FAMILY INCOME	STB -.176 * USTB -.289 SE (.074)
EDUCATION	STB .072 USTB .148 SE (.100)
INTERCEPT	2.894
R-SQUARE	.136

* significant at the 0.01 level

** significant at the 0.05 level

Legend: STB: standardized beta-coefficient
 USTB: unstandardized beta-coefficient
 SE: Standard Error

12. Conclusion

The concept of postmaterialism is very appealing, but, at the same time, a rather vague one. Recent research has neglected the study of the nature of postmaterialism. However, as post-materialist values and goals become more prevalent in Western societies and postmaterialists like the German Greens and the "generation of grandsons" among the German Social Democrats become more outspoken and powerful, it is not sufficient only to know that postmaterialism does exist in Western democracies.

The aim of this thesis was to analyze the nature of postmaterialism in West Germany and the United States. It was shown that the operationalization of the Inglehart model that was developed to describe and explain the shift of political values in Western democracies was not very powerful for a prediction of the nature of postmaterialism in West Germany and especially in the United States. This model included a distinctive cohort experience, rising levels of education, and the satisfaction of sustenance needs as predictors of postmaterialism. The quantitative analyses showed that the model is better suited to predict postmaterialism in West Germany, while it was much weaker

for determining the nature of American postmaterialism. Therefore, an alternative model was developed which constituted an expansion of the Inglehart model.

This second model was based on Inglehart's theory and specific effects of a value-shift. In addition to the original four indicators of the Inglehart model, party preference, interest in politics, membership in a civic group and inclination to protest, which were regarded as effects of the value-shift, were included in an alternative model. This expanded model had more than twice the explanatory power in both countries under consideration. It was demonstrated that there are differences between the correlates of American and German postmaterialism. American postmaterialism is more heavily associated with the inclination to protest and the economic situation of the family, while in Germany, education, interest in politics and the inclination to protest play a more prominent role. Moreover, it should be emphasized that the model is three times more powerful in predicting the nature of German postmaterialism than American postmaterialism. It was then asked what the possible reasons for these national peculiarities may be and a provisional test was performed with the American data.

In a preliminary analysis, it was hypothesized that there are regional differences with regard to the nature of postmaterialism. In order to dissect eventual regional differences, two separate analyses of two sub-populations of the American sample were run. One sub-population consisted of the southern United States while the other one included the non-southern states. The analysis led to the conclusion that a within-system peculiarity like region (and possibly political culture) leads to different levels of predictive power of the variables under consideration. There are a number of reasons why some of the findings seem to contradict the theory that was presented or produced lower scores than expected. First, it should be mentioned that Inglehart's model of a value-shift is a causal one that is meant to work only when all conditions of the socialization and scarcity hypotheses are met. It is not very likely that all respondents described as postmaterialists meet all the conditions. The group of respondents who are post-materialists because of all conditions specified in Inglehart's theory is therefore probably smaller than the number of respondents categorized as postmaterialists in the samples. Since every single condition of Inglehart's model was used as a single

predictor of postmaterialism in a linear and additive fashion, there may be limits to the regression-analysis performed in this thesis. It may be that the interaction of the variables in the model is non-linear and non-additive. This would indicate that the model would have to be specified accordingly.

Moreover, the predictive power of the demographic variables, education, age, and the economic situation, in the original model automatically decreased once the behavioral variables party preference, interest in politics, membership in a civic group, and protest behavior were brought into the model. This decrease may be due to the influence the demographic variables exercise on the behavioral variables. It is possible that low correlations and a low predictive power of the models under consideration are caused by problems of systematic measurement error or the timing of the survey in the midst of a period when the historic effects are particularly strong.

Furthermore, the coding of the variable age may be problematic with regard to the theory that was advanced. A greater number of socialization effects that constitute the distinct cohort experience might be taken into conside-

ration as opposed to the total war experience as the only one. When Inglehart performed his analyses in the late 1960s, only the total war experience could be taken as a dominant socialization factor. Since then, there have been periods of intensive formative influence such as the 1960s with the student protests and the Vietnam experience and the 1970s with the Arab oil embargo, an economic slump and Watergate. These periods could be regarded as ones that caused distinct cohort experiences. The variable age that is operationalized in order to assess the distinctive cohort experience would have to be coded in a way that separates these distinct cohort experiences in order to examine the cohort experiences more closely.

Another important finding of this thesis was that higher levels of material well-being do not not predict higher levels of postmaterialism. To the contrary it was found consistently that lower levels of economic well-being (current and formative) were associated with higher levels of postmaterialism. This finding should be interpreted with caution since it contradicts the scarcity-hypothesis of Inglehart's theory. The negative relationship may be spurious because both family income and postmaterialism are correlated with age or other factors. A positive

correlation of age and family income and a negative correlation of age and postmaterialism, for example, would produce a negative correlation of postmaterialism and family income. However, it is likely that these relationships are more complex than that.

The predictive power of the variable membership in a civic group was relatively low and it should be dropped from the model. The predictive model is far from complete even though it already explained more than a third of the variance in the dependent variable, postmaterialism, in Germany. There are other factors that should be considered for inclusion in the model, such as membership in a special interest group or conventional political participation. It would also be essential for any analysis of postmaterialism to identify the effects that variables like education and age have on the other variables that were investigated.

It has been shown that post-materialism is a related phenomenon in the United States and West Germany that cannot be predicted with the same variables in the two countries. It is suggested that future research identify the intra-systemic factors that make the postmaterialist phenomenon distinct.

APPENDIX A

I. Correlations between Postmaterialism, Education, Age, Well Off and Family Income in the 1974 American Cross-Section Sample

	P-MAT	EDUC	AGE	WELL OFF
P-Materialism	1.000			
Education	.129	1.000		
Age	.156	.204	1.000	
"Well Off"	.055	.275	.166	1.000
Family Income	-.053	.436	-.105	.089

Legend: P-Mat = Postmaterialism
 EDUC = Education
 AGE = Age
 WELL OFF = Well Off

(Values shown are Pearson's product moment correlations)

II. Correlations between Postmaterialism, Education,
Age, Well Off, and Family Income in the 1974 German
Cross-Section Sample

	P-MAT	EDUC	AGE	WELL OFF
P-Materialism	1.000			
Education	.309	1.000		
Age	.207	.179	1.000	
"Well Off"	-.039	.143	.090	1.000
Family Income	.174	.353	.091	.046

Legend: P-MAT = Postmaterialism
EDUC = Education
AGE = Age
WELL OFF = Well off

(Values shown are Pearson's product moment correlations)

III. Correlations between Postmaterialism, Education,
Age, Well Off, and Family Income in the 1980
American Panel Sample

	P-MAT	EDUC	AGE	WELL OFF
P-Materialism	1.000			
Education	.093	1.000		
Age	.045	.000	1.000	
Well Off	.036	.248	-.049	1.000
Family Income	-.059	.454	.001	.056

Legend: P-MAT = Postmaterialism
EDUC = Education
AGE = Age
WELL OFF = Well Off

(Values shown are Pearson Product Moment Correlations)

IV. Correlations between Postmaterialism, Education,
Age, Well Off, and Family Income in the 1980
German Panel Sample

	P-MAT	EDUC	AGE	WELL OFF
P-Materialism	1.000			
Education	.379	1.000		
Age	.191	.216	1.000	
Well Off	.025	.178	.152	1.000
Family Income	.172	.348	.094	.060

Legend: P-MAT = Postmaterialism
EDUC = Education
AGE = Age
WELL OFF = Well Off

(Values shown are Pearson's Product moment correlations)

V. Correlation Matrix of Variables in the New Model
Analyzed with the 1974 U.S. Cross-Section Sample

	P-MAT	FINCOM	INTRST	PRTEST	PARTYP	CIVICG	AGE	EDUC
P-MAT	1.000							
FINCOM	-.056	1.000						
INTRST	.124	.210	1.000					
PRTEST	.259	.265	.230	1.000				
PARTYP	.132	-.148	-.045	.063	1.000			
CIVICG	.039	.132	.153	.015	-.088	1.000		
AGE	.095	-.130	-.014	.139	.023	-.107	1.000	
EDUC	.097	.441	.284	.357	-.173	.138	.161	1.000
WELL O	.032	.131	.057	.137	-.185	-.008	.139	.249

Values shown are Pearson's product moment correlations.

Legend: P-MAT: Postmaterialism
 FINCOM: Family Income
 INTREST: Interest
 PRTEST: Protest Behavior
 PARTYP: Party Preference
 CIVICG: Membership in Civic Group
 AGE: Age
 EDUC: Education
 WELL O: Well Off

VI. Correlation Matrix of Variables in the New Model
 Analyzed with the 1974 German Cross-Section Sample

	P-MAT	FINCOM	INTRST	PRTEST	PARTYP	CIVICG	AGE	EDUC
P-MAT	1.000							
FINCOM	.207	1.000						
INTRST	.301	.251	1.000					
PRTEST	.414	.195	.299	1.000				
PARTYP	.345	.089	.115	.216	1.000			
CIVICG	-.128	-.035	.009	-.019	-.083	1.000		
AGE	.206	.076	.107	.257	.123	-.031	1.000	
EDUC	.334	.382	.361	.330	-.008	-.037	.207	1.000
WELL O	-.085	.092	.023	-.072	-.120	.126	.102	.134

The Values shown are Pearson's Product Moment Correlations.

Legend: P-MAT: Postmaterialism
 FINCOM: Family Income
 INTRST: Interest in Politics
 PRTEST: Protest Behavior
 PARTYP: Party Preference
 CIVICG: Membership in a Civic Group
 AGE: Age
 EDUC: Education
 WELL O: Well Off

APPENDIX B

1. The Materialist/Postmaterialist Goals

I.

"In politics it is not always possible to obtain everything one might wish. On this card, several different goals are listed."

1. Maintain order in the country
2. Give people more say in the decisions of government
3. Fight Rising Prices
4. Protect Freedom of Speech

- (1) If you had to choose among them, which one seems most desirable to you ?
- (2) Which goal would be your second choice ?
- (3) Which goal would be your third choice ?
- (4) Which goal would be your fourth choice ?

II.

"Here are some more goals and objectives people say our country as a whole should concentrate on. Of course, all of these are important to all of us in one way or another, but which three are most important to you personally ?"

1. Maintain a high rate of economic growth
2. Make sure that this country has strong defense forces
3. Give people more say in how things are decided at work and in their community
4. Try to make our cities and countryside more beautiful
5. Maintain a stable economy
6. Fight against crime
7. Move toward a friendlier, less impersonal society
8. Move toward a society where ideas are more important than money

- (1) Now which of these is the most important of all ?
- (2) And which of these goals is the second most important ?
- (3) Which goal is the third most important ?
- (4) Now which of these goals is least important ?
- (5) And which is the next-to-least important ?
- (6) Which goal is third least important ?

From these questions, a 10-point and a 4-point index were constructed. For an exact description of how the indices were constructed, see Barnes, Kaase, et.al..(1979). Political Action. pp.564-566.

2. Respondent's Education

"What was the highest grade of school or year of college you completed ?"

The respondent's level of education was originally coded in the following categories:

United States -

00 - no schooling

11 - 1 grade

12 - 2 grades

13 - 3 grades

14 - 4 grades

15 - 5 grades

16 - 6 grades

17 - 7 grades

18 - completed 7 grades or less plus non-college training

21 - 8 grades

22 - completed 8 grades plus non-college training

31 - 9 grades

32 - 10 grades

33 - 11 grades, or 9th - 12th grades, na exact level

41 - 9 grades plus non-college training

42 - 10 grades plus non-college training

43 - 11 grades plus non-college training

51 - 12 grades

61 - 12 grades plus non-college training

71 - some college

80 - Associate of Arts (AA)

81 - Bachelor's degree (4 or 5 years college)

82 - Master's degree (or graduate level bachelor's degree)

83 - PhD, LitD, ScD, DFA, DLit, DPh, DPhil, DSc

84 - JD, JSD, SJD

85 - MD, DDS, DVM, VS

87 - Honorary Degree

98 - DK

99 - NA

Germany -

01 - Volksschule, Hauptschule ohne Abschluss

02 - Volksschule, Hauptschule mit Abschluss

03 - Berufsschule

04 - Mittlere Reife

05 - Abitur

06 - Technikerschule

07 - Sonstige Berufsfachschule

08 - Ingenieurschule

09 - Universitaet, Hochschule, auch Lehrerausbildung

10 - Noch in Ausbildung

98 - DK

99 - NA

Method:

The original country-specific code categories were then collapsed in order to provide a cross-nationally comparable index.

New Codes: -----	Old Codes:	Germany	U.S. -----
1. Basic Level		1,2	10-16
2. Lower Level		3	17-31
3. Extended lower level		4,7	32-43
4. Middle Level		5,6	51,61
5. Higher Level		8,9	71-85
9. MD		98,99	98,99

3. Age

"And now a few questions about yourself. Can you tell me in what year you were born ?"

The actual year was coded. This variable was then dichotomized into two categories:

- 0 - Respondents born before 1945
- 1 - Respondents born after 1945

4. Well Off

"Would you say that, when you were growing up, your family was financially well off, fairly well off, had some financial difficulties, or was their life really very difficult ?"

The original categories are:

- 1. well off
- 2. fairly well off
- 3. has some difficulties
- 4. life was very difficult

- 8. DK
- 9. NA

The scale was then inverted in order to have a positive association of the variable with postmaterialism, since it was assumed that a better financial situation went with higher levels of postmaterialism.

5. Family Income

"Here is a card which shows different levels of family incomes. I would like you to tell me which level applies to your family. Please call out the letter which comes closest to the total amount of money that your family receives from all sources after all deductions".

United States: Gross Yearly Income

- 01 - none
- 02 - less than \$ 1,000
- 03 - \$ 1,000 - 1,999
- 04 - \$ 2,000 - 2,999
- 05 - \$ 3,000 - 3,999
- 06 - \$ 4,000 - 4,999
- 07 - \$ 5,000 - 5,999
- 08 - \$ 6,000 - 6,999
- 09 - \$ 7,000 - 7,999
- 10 - \$ 8,000 - 8,999
- 11 - \$ 9,000 - 9,999
- 12 - \$ 10,000 - 10,999
- 13 - \$ 11,000 - 11,999
- 14 - \$ 12,000 - 14,999
- 15 - \$ 15,000 - 19,999
- 16 - \$ 20,000 - 14,999
- 17 - \$ 25,000 - 34,999
- 18 - \$ 35,000 and over

Germany: Net Monthly Income -

- 00 - none
- 01 - less than 500 DM
- 02 - 500 - 750 DM
- 03 - 750 - 1,000 DM
- 04 - 1,000 - 1,250 DM
- 05 - 1,250 - 1,500 DM
- 06 - 1,500 - 1,750 DM
- 07 - 1,750 - 2,000 DM
- 08 - 2,000 - 2,500 DM
- 09 - 2,500 - 3,000 DM
- 10 - 3,000 DM and more

6. Interest in Politics

"How interested would you say you are in politics - are you very interested, somewhat interested, not much interested, or not at all interested ?"

1. very interested
2. somewhat interested
3. not much interested
4. not at all interested

The scale of this variable was inverted since a high interest in politics was hypothesized to go with a high level of postmaterialism.

7. Membership in Civic Group

"Here is a list of some of the kinds of organizations that many people go in. Do you belong to any of the kinds of organizations shown on this list ? Which ones ?"

United States: Civic Groups

Germany: Gruppe einer Buergerinitiative

(If R is a member) "How active a member would you say you are ? Is that very active, fairly active, or not at all active ?"

0. not a member of this organization
1. not very active
2. fairly active
3. very active
7. not a member of any organization on the list
9. NA

8. Party Preference

The variable party preference is a recoded index of several questions concerning the respondents' partisan preference.

Country-specific recoding pattern as follows:

	United States	Germany
1 = Left	Strong Democrat, not very strong Democrat, independent closer to Democrats	SPD
2 = Center	-----	FDP
3 = Right	Strong Republican, not very strong Republican, independent closer to Republicans	CDU/CSU NPD

SPD: Social Democratic Party

FDP: Free Democratic Party

CDU/CSU: Christian Democratic Union/ Christian Social Union

NPD: National Democratic Party

9. Protest Activity

This index was constructed from the responses to questions concerning political protest activity. For an exact description of how the index was created, see:

Barnes, Kaase, et.al. (1970). Political Action. Beverly Hills: Sage, p.543-555.

Originally, the respondent was asked whether he/she

1. has done
2. would do
3. might do
4. would never do

the following activities:

- (1) signing a petition
- (2) joining a boycott
- (3) attending lawful demonstrations
- (4) refusing to pay rent or taxes, etc. ---
- (5) joining in wildcat strikes
- (6) painting slogans on the wall
- (7) occupying buildings or factories
- (8) blacking traffic with a street demonstration
- (9) damaging things like breaking windows, removing road signs, etc. ---
- (10) using personal violence like fighting with other demonstrators or the police ---

The authors of the Political Action study used a Guttman index that ranged from 0 to 7 to express the level of protest potential with 0 standing for the lowest and 7 standing for the highest level of protest potential. The protest activities were ranked, answers 1 and 2 were pooled to constitute a positive answer, questions 3 and 4 were combined to create a negative one. A respondent who is assigned a certain number on the Guttman scale performs the mentioned activity in his category plus all the ones on all of lower categories (except 0).

10. Region

This variable codes the region where the respondents lives in six categories:

1. New England
2. Middle Atlantic
3. East North Central
4. West North Central
5. Solid South
6. Border
7. Mountain
8. Pacific

The states that are subsumed under "Solid South" are:

Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia.

REFERENCES:

- Abramson, Paul R. (1975). Generational Change in American Politics. Lexington, Mass.: Heath.
- Abramson, P.R. (1983). Political Attitudes in America. San Francisco: Freeman.
- Abramson, Paul, Aldrich, John and David Rohde (1986). Change and Continuity in the 1984 Election. Washington, D.C.: CQ Press.
- Abramson, Paul and Ronald Inglehart (1986). "Generational Replacement and Value Change in Six West European Societies". American Journal of Political Science. No.30:1-25.
- Almond, Gabriel and Sidney Verba (1963). The Civic Culture. Princeton: Princeton University Press.
- Almond, G; Verba, S. eds. (1980). The Civic Culture Revisited. Boston: Little, Brown.
- Baker, Kendall, Dalton, Russell and Kai Hildebrandt (1981). Germany Transformed. Cambridge: Harvard University Press.
- Barnes, Samuel, Kaase, Max, et al. (1979). Political Action. Beverly Hills: Sage, 1979.
- Bell, Daniel (1960). The End of Ideology. New York: Free Press.
- Bell, Daniel (1973). The Coming of Postindustrial Society. New York: Basic Books.
- Blalock, Hubert M. (1979). Social Statistics. 2nd ed.. New York: McGraw-Hill.
- Boeltken, Ferdinand and Wolfgang Jagodzinski (1984). "Postmaterialism in the European Community, 1970-1980". Comparative Political Studies. No.17: 453 - 484.
- Brzezinski, Zbigniew (1970). Between Two Ages. New York: Viking.

- Call, V., Otto, L. and K. Spenner (1982). Tracking Respondents: A Multi Method Approach. Lexington, Ma.: Lexington Books.
- Campbell, Angus et al. (1960). The American Voter. New York: Wiley, 1960.
- Campbell, Angus, Converse, Philip and Willard Rodgers (1979). The Quality of American Life. New York: Russell Sage.
- Cantril, Hadley (1965). The Patterns of Human Concerns. New Brunswick, N.J.: Rutgers University Press.
- Cerny, Karl ed. (1978). Germany at the Polls. Washington, D.C.: American Enterprise Institute.
- Cerny, Karl ed. (1984). Germany at the Polls, 1980 - 1983. Washington, D.C.: American Enterprise Institute.
- Citrin, J. and D.J. Elkins (1975). Political Dissatisfaction Among British University Students. Berkeley: Institute of International Studies.
- Conradt, David (1980). "Changing German Political Culture". In: Almond, G.; Verba, S. (eds.): The Civic Culture Revisited. Boston: Little Brown, 1980.
- Conradt, David (1981). "Political Culture, Legitimacy, and Participation". West European Politics. No. 4: 18-34.
- Conradt, David (1985). The German Polity. 3rd ed.. New York: Longman.
- Converse, Philip (1964). "The Nature of Belief Systems in Mass Publics". In: Apter, D. (ed.): Ideology and Discontent. New York: Free Press.
- Converse, Philip (1970). Attitudes and Non-Attitudes, in: Tufte, E. (ed.): The Quantitative Analysis of Social Problems. Reading, Mass.: Addison-Wesley.
- Cooney, James (1984). The Federal Republic of Germany and the United States: Changing Political, Social and Economic Relations. Boulder, Co.: Westview Press.

- Dalton, Russell (1977). "Was There a Revolution ?"
Comparative Political Studies, No.4: 459 - 473.
- Dalton, Russell and Kendall Baker (1985). "The Contours of
West German Opinion". In: Wallach, H.G.; Romoser,
G. (eds.): West German Politics in the Mid-
Eighties. New York: Praeger.
- Dalton, Russell (1988). Citizen Politics in Western
Democracies. Chatham, N.J.: Chatham House.
- Dalton, Russell (1988). Politics in West Germany. Boston:
Little, Brown.
- Easton, David and Jack Dennis (1969). Children in the
Political System. New York: McGraw-Hill.
- Easton, David (1975). "A Reassessment of the Concept of
Political Support". British Journal of Political
Science. No.5: 435-457.
- Edinger, Lewis (1985). Politics in Germany. New York:
Columbia University Press.
- Erikson, Robert, Luttbeg, Norman and Kent Tedin (1980).
American Public Opinion. New York: Wiley.
- Farah, Barbara, et.al. (1979). Political Dissatisfaction. In:
Barnes, Samuel, Kaase, Max, et.al.. Political
Action. Beverly Hills: Sage.
- Feather, N.T. and M.A. Hutton (1973). "Value Systems of
Students in Papua New Guinea and Australia".
International Journal of Psychology . No.9: 91-104.
- Finkel, Steven E. (1987). "The Effects of Participation on
Political Efficacy and Political Support: Evidence
from a West German Panel". Journal of Politics, 49,
No.2: 441-464.
- Flanagan, Scott (1982). "Changing Values in Advanced
Industrialist Society". Comparative Political
Studies. No.14: 403-444.

- Gibson, James L. and Richard D. Bingham (1982). "On the Conceptualization and Measurement of Political Tolerance". American Political Science Review, No.76, p.603-620.
- Gielen, Uwe (1986). "Moral Reasoning in Radical and Non-Radical German Students". Behavior Science Research. Vol.20, Nos.1-4: 71-109.
- Gilmour, R.S. and R.B. Lamb (1975). Political Alienation in Contemporary America. New York: St.Martin's Press.
- Goodman, P. (1960). Growing Up Absurd. New York: Knopf.
- Gunther, H. (1975). "Ein Versuch der Anwendung der 'Rokeach Value Scale' in der Bestimmung von Werthaltungen Deutscher Austauschschueler". Psychologische Beitrage. No.17: 304-420.
- Gurr, T. Robert (1970). Why Men Rebel. Princeton: Princeton University Press.
- Harding, Steve (1986). Contrasting Values in Western Europe. London: MacMillan.
- Hess, Robert and Judith Torney (1967). The Development of Political Attitudes in Children. Chicago: Aldine.
- Hildebrandt, Kai and Russell Dalton (1978). "The New Politics". In: Kaase, M. and K. von Beyme (eds.): German Political Studies: Elections and Parties. Vol.3. Beverly Hills: Sage.
- Huntington, Samuel (1974). "Postindustrial Politics: How Benign Will It Be ?". Comparative Politics. No.6: 147- 177.
- Huntington, Samuel (1981). American Politics: The Promise of Disharmony. Cambridge, Mass.: Harvard University Press.
- Inglehart, Ronald (1971). "The Silent Revolution in Europe: Intergenerational Change in Post-Industrial Societies". American Political Science Review, 65, No.4: 991 - 1017.

- Inglehart, Ronald (1977). The Silent Revolution. Princeton: Princeton University Press.
- Inglehart, Ronald (1978). "Value Priorities, Life Satisfaction, and Political Dissatisfaction Among Western Publics". Comparative Studies in Sociology, No.1: 173 - 202.
- Inglehart, Ronald (1980). "Zusammenhang Zwischen Soziooekonomischen Bedingungen und Individuellen Wertprioritaeten". Koelner Zeitschrift Fuer Soziologie und Sozialpsychologie, No.32: 144 - 153.
- Inglehart, Ronald (1981). "Post-Materialism in an Environment of Insecurity". American Political Science Review. 75: 880-900.
- Inglehart, Ronald (1982). "Changing Values in Japan and the West". Comparative Political Studies, No.4: 445 - 479.
- Inglehart, Ronald (1984). "New Perspectives on Value Change". Comparative Political Studies. No.17: 485-532.
- Inglehart, Ronald (1985). "Aggregate Stability and Individual-Level Change in Mass Belief Systems: The Level of Analysis Paradox". American Political Science Review, 79, No.1: 97 - 117.
- Inglehart, Ronald; Klingemann, Hans D. (1976). "Party Identification, Ideological Preference and the Left-Right Dimension Among Western Publics". In: Budge, Ian, Crewe, Ivor, and Farlie, Dennis (eds.), Party Identification and Beyond. London and New York: Wiley, pp. 243 - 273.
- Jennings, M. Kent (1976). "The Variable Nature of Generational Conflict", Comparative Political Studies, No.2: 171 - 188.
- Jennings, Kent (1987). "Residues of a Movement: The Aging of the American Protest Movement". American Political Science Review. 81, No.2: 367-404.
- Jennings, M. Kent and Niemi (1973). The Character of Political Adolescence. Princeton: Princeton University Press, 1973.

- Jennings, M. Kent and Richard Niemi (1981). Generations and Politics. Princeton: Princeton University Press.
- Judd, Charles and Michael Milburn (1980). "The Structure of Attitude Systems in the General Public". American Sociological Review. 45: 627-643.
- Kavanagh, D. (1972). Political Culture. London: MacMillan.
- Keniston, K. (1965). The Uncommitted: Alienated Youth in American Society. New York: Dell.
- Keniston, K. (1971). Youth and Dissent: The Rise of the New Opposition. New York: Harcourt Brace Jovanovich.
- Knoke, David (1984). "Conceptual and Measurement Aspects in the Study of Political Generation". Journal of Political and Military Sociology. 12, No.1: 191-201.
- Lane, Robert (1965). "The Politics of Consensus in an Age of Affluence". American Political Science Review. 59: 874-895.
- Lane, Robert (1973). "Patterns of Political Belief". In: Knutson, J. (ed.): Handbook of Political Psychology. San Francisco: Jossey-Bass.
- Lijphart, Arend (1975). "The Comparable-Cases Strategy in Comparative Research". Comparative Political Studies. No.8: 158-177.
- Lipset, S.M. (1963). The First New Nation. New York: Norton.
- Lipset, S.M. (1985). "Feeling Better". Public Opinion, No.8: 6ff.
- Lipset, S.M. and W. Schneider (1983). The Confidence Gap. New York: Free Press.
- Markus, Gregory B. (1979). Analyzing Panel Data. Beverly Hills: Sage.
- Marsh, A. (1977). Protest and Political Consciousness. London: Sage.

- McClusky, Herbert and Alida Brill (1983). Dimensions of Tolerance. New York: Russell Sage Foundation.
- McKuen, Michael and Courtney Brown (1987). "Political Context and Attitude Change". American Political Science Review. 81: 471-490.
- Merritt, Anna J. and Richard L. Merritt eds. (1980). Public Opinion In Semisovereign Germany: The HIOG-Surveys 1949 - 1955. Urbana: University of Illinois Press.
- Miller, Arthur (1974). "Political Issues and Trust in Government". American Political Science Review, 68: 951-972.
- Miller, Arthur and Martin Wattenberg (1985). "Throwing the Rascals Out". American Political Science Review. 79: 359-372.
- Muller, Edward (1979). Aggressive Political Participation. Princeton: Princeton University Press.
- Muller, Edward and Thomas Jukam (1977). "On the Meaning of Political Support". American Political Science Review. 71: 1561-1595.
- Nie, Norman and Kristi Andersen (1974). "Mass Belief Systems Revisited". Journal of Politics. 36: 340-391.
- Nie, Norman and John Rabjohn (1979). "Revisiting Mass Belief Systems Revisited". American Journal of Political Science. 23: 139-175.
- Nie, Norman, Verba, Sidney and Tom Petrocik (1979). The Changing American Voter. Cambridge, Mass.: Harvard University Press.
- Niemi, Richard and Anders Westholm (1984). "Issues, Parties and Attitudinal Stability". Electoral Studies. No.3: 65-83.
- Noelle-Neumann, Elisabeth (1967). The Germans, 1947 - 1966. Allensbach: Institut fuer Demoskopie.
- Noelle-Neumann, Elisabeth (1981). The Germans, 1967 - 1980. Westport: Greenwood Press.

- Noelle-Neumann, Elisabeth and Edgar Piel (1984). Allensbacher Jahrbuch der Demoskopie, 1979 - 1983. Munich: Saur.
- Pedhazur, Elazar J. (1982). Multiple Regression in Behavioral Research. 2nd ed.. New York: Holt, Rinehart and Winston.
- Prothro, J. and C. Grigg (1960). "Fundamental Principles of Democracy: Bases of Agreement and Disagreement". Journal of Politics. No.22: 276-294.
- Przeworski, Adam; Teune, Henry (1970). The Logic of Comparative Social Inquiry. New York: Wiley.
- Ranade, Wendy and Pippa Norris (1984). "Democratic Consensus and the Young: A Cross National Comparison of Britain and America". Youth and Society. 15, No.4: 429-443.
- Rattinger, Hans (1987). "Change Versus Continuity in West German Public Attitudes on National Security and Nuclear Weapons in the Early 1980s". Public Opinion Quarterly, 51, No.4: 495-521.
- Reich, C.A. (1970). The Greening of America. New York: Random House.
- Reynolds, Beatrice K. (1984). "A Cross Cultural Study of Values of Germans and Americans". International Journal of Intercultural Relations. 8, No.3: 269-278.
- Rokeach, M. (1973). The Nature of Human Values. New York: Free Press.
- Rokkan, Stein ed. (1968). Comparative Research Across Cultures and Nations. Paris: The Hague Mouton.
- Savage, James (1985). "Postmaterialism of the Left and Right". Comparative Political Studies, No.4: 431 - 451.
- Schuman, Howard and Stanley Presser (1981). Questions and Answers in Attitudinal Surveys. New York: Academic Press.

- Smith, Thomas W. (1987). "The Polls - A Report: The Welfare State in Cross National Perspective". Public Opinion Quarterly, 51, No.3: 414-421.
- Stewart, E.C. (1972). American Cultural Patterns: A Cross-Cultural Perspective. Chicago: Intercultural Press.
- Sullivan, John, Piereson, James and George Marcus (1982). Political Tolerance and American Democracy. Chicago: University of Chicago Press.
- Vedlitz, Arnold (1983). "The Impact of College Education on Political Attitudes and Behaviors: A Reappraisal and Test of the Self-Selection Hypothesis". Social Science Quarterly, 64, No.1: 145-153.
- Verba, Sidney (1978). Participation and Political Equality: A Seven Nation Comparison. Cambridge: Cambridge University Press.
- Wallach, H.G. Peter and George K. Romoser eds. (1985). West German Politics in the Mid-Eighties: Crisis and Continuity. New York: Praeger.

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