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A Critique of Ronald Inglehart's Theory of Cultural Shift

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A Critique of Ronald Inglehart's Theory of Culture Shift

A Thesis

Presented to

The Faculty of the Department of Government

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

by

William Horning-Kossler

1994

APPROVAL SHEET

This Thesis is submitted in partial fulfillment of
the requirements for the degree of

Master of Arts




William Horning-Kossler

Approved, December 1994



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Donald Baxter



Michael Clark

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ABSTRACT

In The Silent Revolution (1977) and Culture Shift in Advanced Industrial Democracies (1990) Ronald Inglehart compiles, analyzes and presents voluminous survey data about political attitudes in the publics of the industrialized West. The data he uses come from every major advanced industrial democracy, especially Europe and the U.S., and spans eighteen years. Inglehart paints a picture of Western societies undergoing gradual, incremental, but sweeping change in their cultural values. He argues this change is inter-generational. Older generations retain values acquired during their formative years, but successive generations are socialized, and form their values, under changed conditions, and so have different values. To account for this change Inglehart argues that the historically unparalleled prosperity of the postwar industrial West and rise of the welfare state have instilled a sense of material security in each progressively wealthier and more secure generation. He may be correct in his assertion of a sweeping, intergenerational shift in values but his asserted causal mechanism for this shift must be rejected. First, it is derived from, and relies on, Abraham Maslow's theories about need hierarchies, which are not simply untested or unproven, but have no connection with anything similar to a scientific epistemology, do not make a legitimate effort at empirical verification, and are filled with bizarre, unfounded assertions which immoderately flatter those who think like Maslow and insult those who think otherwise. Second, available data, including his own, do not support his suggested economic causal mechanism, but suggest rather that socializing factors like education and religious affiliation are highly influential in determining the values he documents. Third, when forced to accept that exposure to the university social milieu is a powerful cause of Postmaterialism, he chooses to regard it as a second, unrelated cause of the values in question, failing to apply Occam's razor and needlessly making his theory less parsimonious. Fourth, Inglehart's categorization of the changing nature of western partisan polarization as Materialist versus Postmaterialist is incoherent because the conservative-Materialist pole is concerned not with different, material issues but the same lifestyle issues as the liberal-Postmaterialists. The second through fourth problems all flow from an attachment to Maslow's image of the world, and cease to be problems if all of Maslow's influence is excised from Inglehart's work.

A Critique of Ronald Inglehart's Theory of Culture Shift

INTRODUCTION

In his many works Ronald Inglehart compiles and presents voluminous data about political attitudes in the publics of the industrialized West. Inglehart paints a picture of Western societies undergoing gradual and incremental, but sweeping intergenerational change in their cultural values. To account for this change Inglehart argues that increasing prosperity in the postwar industrial West has instilled a sense of material security in each progressively wealthier and more secure generation, so that individuals can emphasize different, less material values than in the past, and that the social milieu of university campuses acts as a complementary influence with the same effect as prosperity. While a sweeping, intergenerational shift in values may be occurring, his assertion of two causal mechanisms; economic conditions and social environment, is untenable. If one rejects Inglehart's economic explanation for value change, casting emphasis instead upon social environment in general, and exposure to the university social milieu in particular, numerous logical and empirical difficulties with Inglehart's work are eliminated.

Both Inglehart's and the present work approach the study of the political from the comparative perspective. This school of political science was promoted by Roy Macridis in the 1950's and is associate with individuals such as Gabriel Almond, Sidney Verba and Samuel Huntington, among others. It holds that to increase knowledge of the political, it is useful to approximate an experimental methodology by using the varying circumstances in different countries as an analog for experimental and control groups. The school emphasizes operationalizing the salient concepts in order to be clear about what is being examined, to aid in examining the same issue in more than one country, and to make it possible for results to be reproducible, and testable by others. For this reason, quantifiable measures such as

economic data, demographic data and survey data are popular with adherents of this school of study.

The goal in this general school is to work towards an ever more accurate set of theories concerning political behavior. The following work pursues that goal by critically examining the arguments behind Ronald Inglehart's theory of value formation and culture shift, and attempting to test aspects of the theory. First, the theory will be briefly outlined and similar, corroborating parallel viewpoints presented. Then the link between Inglehart's central theses and the work of Abraham Maslow will be explored, and the usefulness of Maslow examined. Next, difficulties arising within Inglehart's work as a result of Maslow's influence will be discussed, his data and other statistical evidence will be examined. The substance of various critiques of Inglehart will also be discussed, along with Inglehart's most recent published response to his critics.

SECTION A

I

Inglehart's Theory

What does Inglehart say? Inglehart's numerous books and articles over the last twenty years promote and attempt to test and measure various aspects of his theory of culture shift. According to the theory, traditional values and culture, which Inglehart describes as "Materialist", are giving way to what he describes as "Postmaterialist" values and culture (Inglehart 1990, 5). Materialists are concerned with material well-being and security, while Postmaterialists are more concerned with what Inglehart asserts are quality of life issues.

The tools Inglehart uses to ascertain whether an individual is Materialist, Postmaterialist, or Mixed, are a four and a twelve question battery included in the Euro-Barometer surveys and in some other surveys in the U.S. and North America, since the middle of the seventies. The four question battery asks respondents to say which they regard as most, and then second most, important; "(a) maintain order in the nation; (b) give people more say in the decisions of the government; (c) fight rising prices; (d) protect freedom of speech" (Inglehart 1990, 74). The twelve question battery has similar questions, and includes the four question battery. On the four-question battery, those who emphasize order and prices are Materialist, while those who emphasize freedom of speech and giving people a say are Postmaterialist (Inglehart 1990, 29).

Inglehart takes these measures, divides the population into two poles and two mixed sections and, aggregating the responses from all the countries examined, finds two broad trends. First, a polar tendency around the Materialist-Postmaterialist dimension he hypothesizes: there are more consistently "Postmaterialist" or "Materialist" responses than a random distribution would produce (Inglehart 1990, 136). This tendency holds true for the less frequent twelve question battery and

there is a high correlation between the value scores in both batteries, in cases where both were asked. Second, the overall proportion of Postmaterialists to Materialists has steadily increased over the last several of decades. Each age group or cohort tends to retain similar proportions of responses to the battery, but each successively younger cohort is more Postmaterialist than the previous one. The effect is not due to lifecycle changes in values, because, in part, age *cohorts* do not change much after controlling for the periodic impact of inflation. Younger cohorts do not become more Materialistic as they age. At the present rate of shift, Inglehart predicts that by the year 2000, the once overwhelming majority of Materialists over Postmaterialists will have dwindled to a hair thin majority, and presumably, if culture shift continues unchanged, the new millennium will quickly attain a majority of Postmaterialists.

Inglehart links the shifting values phenomenon to a variety of other cultural trends. As Inglehart puts it:

(t)he rise of Postmaterialism is only one aspect of a still broader process of cultural change that is reshaping the political outlook, religious orientations, gender roles, and sexual mores of advanced industrial society. These changes are related to a common concern; the need for a sense of security, which religion and absolute cultural norms have traditionally provided (Inglehart 1990, 177).

He contends that postwar prosperity and the rise of the welfare state have provided a sense of security. Individuals facing uncertainty and danger, particularly during their formative years, tend to need rigid, inviolable rules, while those who feel secure, particularly during formative years, are more able to tolerate diversity. As to why specific traditional mores and orientations would disappear, Inglehart says increased security makes the norms and traditional orientations unnecessary. They no longer serve a functional purpose, so there is at least the possibility of their fading. Then he argues that individuals reject traditional orientations out of a need

for "cognitive consistency" (Inglehart 1990, 179), saying that the pastoral perspective in the Old Testament, and agricultural perspective in the New Testament provide no meaningful framework for the postindustrial age.

While the validity or accuracy of Inglehart's theoretical explanation remains to be seen, he presents voluminous survey data, which, by revealing similar and consistent patterns in country after country, indicate the phenomenon he calls Postmaterialism exists and is strongly correlated with a variety of other views and values in the individuals surveyed. These other phenomena flesh out the political relevance of Inglehart's notion of postmaterialism and show a similarity to the characteristics which Maslow attributed to "self-actualizing" individuals, at the top of the need hierarchy. While the relationship is not perfect, Postmaterialists tend to be more tolerant and liberal on social issues. Inglehart tells us that, unlike attitudes toward public policy, which do not correlate strongly:

Quite consistently, individuals adhere to or reject traditional Judaeo-Christian norms, ranging from belief in God, to acceptance of divorce, abortion, or homosexuality (Inglehart 1990, 182).

To test this, Inglehart conducts a principle component factor analysis of responses to survey questions related to religious beliefs. This is a statistical measure of how strongly several items correlates together as a group. His results support his assertion (Inglehart 1990, 183).

Inglehart's data show that 44% of Postmaterialists rate the importance of religion as low, but only 23% of Materialists do (Inglehart 1990, 186). Inglehart finds similar relationships for views on abortion, divorce, extramarital affairs, prostitution, homosexuality and euthanasia, which are all imputed to reflect the split over Judaeo-Christian or church related values.

Those Inglehart labels "Postmaterialists" are also far more likely to be involved with non-economic political movements such as the Green political parties

in Europe and the environmental movement in the U.S., and anti-nuclear movements on both continents. Being Postmaterialist does not make one Green, and most Postmaterialists are not supporters of an ecological party, but among Greens, Postmaterialists outnumber Materialists by more than five to one (Inglehart 1990, 383).

Postmaterialists are also more likely to become university students:

(b)y 1970 Postmaterialist had attained numerical parity with Materialist only among the postwar generation, furthermore, they were concentrated among the more affluent strata of this age group. Among university students, they heavily outnumbered the Materialists (Inglehart 1990, 76).

It is in the crucible of the university that the distinctions between Materialists and Postmaterialists are really brought to the fore:

The students lived in a distinct milieu, they had highly developed communications networks with other students but were largely isolated from their non-student peers. The priorities prevailing in this milieu were fundamentally different from those shaping the society as a whole (Inglehart 1990, 76-77).

The university milieu is a major contributing factor to highly polarized, consistently Postmaterialist positions in a particular subset of the population. Inglehart briefly addresses and rejects the notion that the social milieu of the university, not formative security, produces the value structures he is interested in:

The existence of such a milieu can play an important part in the evolution and propagation of a given set of values. Indeed, Habermas... argues that the rise of Postmaterialism is not due to the different formative experiences of different generation units, but to exposure to the specific world views inculcated by distinct communication networks... But this explanation seems to complement, not substitute for, the one proposed here. It helps account for the spread of values in a given milieu, but provides no explanation of why given generation units were disposed to accept given values in the first place, while others rejected them (Inglehart 1990, 77).

Thus the university would be a catalyzing socialization force to those already inclined by childhood economic factors toward Postmaterialism. Inglehart rejects the idea that the university is the source of the values in question and asserts instead that the university is, by irrelevant coincidence, an accelerating factor for economic

causes of values.

Another related but distinct phenomenon of concern to Inglehart, which he calls "cognitive mobilization", is also closely tied to the university environment. Cognitive mobilization, defined as "(t)he increasingly wide dissemination of the skills necessary to cope with an extensive political community" (Inglehart 1990, 297) is a growing tendency of a well educated subset of the population to be well informed politically, discuss politics often and strive for, and believe themselves to have, a high level of political impact. Individual awareness of political information and issues is valued, and the "mobilized" individuals desire to have an actual impact on policy formulation, and not just on the choice of personnel who make policy (Inglehart 1977, 293; 1990, 360). Inglehart links this phenomenon and postmaterialism to both the protest movements of the 1960's and changing patterns occurring in partisan voting. Regarding the anti-war protest movement, Inglehart shows that Postmaterialists are substantially more likely to engage in protest activity. They are also more likely to give survey responses indicating cognitive mobilization, *and* the cognitively mobilized are also, independently, more likely to be involved in unconventional political activity, from protests to boycotts. Postmaterialists who are also cognitively mobilized are yet more prone to such activism.

In the forties and fifties, the best predictors of vote were subjective social class and occupation. In the oldest age groups in his surveys, which he calls "cohorts", they remain the best predictors, but in the ensuing decades, class based voting has declined, as workers have switched to the right on traditional values issues, and Postmaterialists who did support the right switched on the same social issues (Inglehart 1990, 260). Inglehart's more recent data indicate that parties of the right get less support from Postmaterialist than Materialists and parties of the left get less from Materialists than Postmaterialists, and this tendency increases strongly

with cognitive mobilization (Inglehart 1990, 375-6).

As an example of the political impact of this, Inglehart suggests that increasingly political support for the U.S. Democratic party can be attributed to Postmaterialists. Inglehart attributes the disastrous 1968 nomination of Eugene McCarthy to the Democratic presidential ticket to the support of Postmaterialist, anti-war, left leaning, high socio-economic status college student activists. He says this group came to dominate party activists and captured the party at this time, continuing to hold it today (Inglehart 1990, 262). In the 1960's cognitively mobilized Postmaterialists were "concentrated in student ghettos" throughout the industrialized West but today, despite being a smaller group than Materialists, they dominate among elites. They outnumber Materialists in top management positions and civil service, particularly among the younger managers. To a lesser extent, they dominate among students and professionals. Hence their impact is now much greater than in the 1960's (Inglehart 1990, 318). In occupations such as self-employed businessperson or manual laborer, their proportion has increased, but is still much smaller than the number of Materialists (Inglehart 1990, 319).

II Parallel Viewpoints

Regardless of any flaws in Inglehart's work, which are serious and will be discussed in section III below, it is his theory *about* culture shift, not the existence of shift that is in question. Many other scholars and politicians on both sides of the cultural divide concur on the general outlines of changing societal polarization. Aaron Wildavsky, in a review essay, independently argues much the same thing about U.S. society. About changing partisan polarization in the U.S., he says:

From the 1930's through the 1950's and most of the 1960's, the main difference between the Democratic and Republican parties was over the size and scope of the welfare state. There were no social or environmental issues. The Republican party was still the party of civil rights and the Equal Rights Amendment... Nowadays the parties are divided almost entirely over issues organized around questions of equality, at least as interpreted by Democratic activists. Instead of differing only on one major issue, the parties systematically split on a whole series: large majorities of Democratic activists not only support a larger welfare state but also reducing defense spending, seeing it as taking from welfare, support relatively unlimited rights to abortion while deploring prayer in schools, desire stronger and more costly environmental and safety regulations but oppose efforts to regulate individual sexual behavior. Republican social conservatives believe and vote almost exactly the opposite (Wildavsky 1992, 230).

Wildavsky, like Inglehart, sees the parties polarizing over the same ideological rather than class or ethnic cleavage. Regarding the growing impact of this cleavage in some professional arenas and not others, Wildavsky concurs with another writer's opinion that the Republican party is understudied "due to the fact that it is liberal democrats who self-select themselves into the political science profession" (Wildavsky 1992, 233).

This uneven distribution of value orientation has fueled controversy in the media. Nat Hentoff, columnist for the left-leaning Village Voice, argued in a Washington Post editorial, dated 12 July 1992, that many law schools suffer from "political correctness" and are intolerant of the expression of non-liberal positions in

the classroom.

Hentoff is interested out of a concern for free expression, but he bases his argument upon an article by Steven Bahls, who uses survey data to raise the issue of intolerance at universities. Bahls has three points: there is an atmosphere of left-leaning political correctness in many law schools; the overwhelming majority of law school professors are liberal democrats, and so, out of line with the U.S. populous; lastly, the solution to the problem of "political correctness", the way to foster open discussion of controversial issues is to establish ideological quotas to insure that sufficient numbers of professors are sufficiently conservative (Bahls 1991, 1055).

The methodology of his survey is severely flawed and his work has other very serious problems¹. It is nonetheless useful here, not because of its content, but because of its existence. Bahls managed to raise in the public arena the issue of the values and opinions of professors, gaining sympathy from both the left and the right. While he does not show the existence of classroom intolerance, the fact that he wrote

¹ The survey Bahls uses consisted of a mailing to all student members of the American Bar Association. This consisted at the time of 947 students. Of these, 449, or roughly 47%, responded. While this is pretty good for a mailed survey, it is troublesome for making solid conclusions. Of those who responded, a high (60%) proportion felt that some professors are intolerant of differing political beliefs, and nearly half of those said the intolerance is frequent (Bahls 1991, 1045). The crucial methodological problem is the lack of randomness or representativeness of the sample. Since there are many thousands of law school students, but only 947 were in the ABA, it seems highly unlikely that those 947 are representative. Additionally, there is no reason to believe that the 47% who responded are like the 53% who did not; indeed, one would expect that those with an axe to grind would be considerably more likely to respond. Leaving aside the methodological problems, only partially shown here, Mr. Bahls himself provides the most powerful argument against taking his conclusions seriously:

Whether such a practice exists is difficult to verify; these practices might be more imagined than real. Of course, whether these practices exist in reality is less important than what students perceive. An incorrect perception that a professor is intolerant is as chilling as a correct perception. It may be easier for a timid student simply to echo a professor's analysis than to risk unwanted criticism... Developing a sound dissenting argument takes time, skill, and confidence. Some students may find asserting that professors will penalize dissent easier than overcoming the risk associated with challenging a professor (Bahls 1991, 1048).

Since Mr. Bahls advocates solving the supposed problem by establishing ideological quotas for professors, whether the practice really exists or not is important. Bahls gives some examples of student responses. Here is one, admittedly chosen for its absurdity, but one which Bahls highlights as an example of the problem:

[My school] is a bastion of "political correctness" enforced by a coterie of self-appointed professors cow-towing to this fascism of the left. If one is white and male, the odds are that he will be attacked as racist, sexist, homophobic (Bahls 1992, 1045)

Unless this gentleman goes to a very unusual school, most of his professors and most of his fellow students are white males. The image of such a group viciously attacking itself on an ongoing basis is more comical than realistic. I am not aware of any university with self-appointed professors. The student being used to demonstrate a problem with a university is highly polemical, and is speaking from a highly recognizable and very specific political ideology. Other examples given by Bahls, but not presented as typical or revealing, find intolerance in precisely the opposite ideological direction.

this article and that others have paid attention suggests conservatives perceive there to be a liberal tendency among professors. He regards the universities as an important battlefield, and desires to rectify what is to him a threatening preponderance of liberals among the well educated through ideological selection of professors. Just as Inglehart finds it significant that Postmaterialists enter academia in disproportionate numbers, and Wildavsky notes that liberals predominate among professors, Bahls finds it significant that conservatives are underrepresented. Thus he highlights the nature and the scope of ideological polarization today, in a manner that reinforces Inglehart's description of the demographic distribution of the value spheres.

Jo Freeman, in an article in PS, discusses the Republican Convention of 1992, and reaches conclusions concerning both the pattern of change in values and of the relevance of culture to politics that are essentially the same as those of Inglehart, without reference to his work. Concerning the changing nature of partisan polarization she says:

During the past twenty years an elite realignment has taken place within and between the major parties. New players were brought into the national parties' coalitions... with opposing agendas. Each succeeded in capturing control of those policy arenas that were most important to it. Consequently the parties have polarized around issues-- gender roles, sexual behavior, reproduction, care of children, family structure, intersection of work and family obligations, military service-- which twenty years ago were either not considered proper political issues, or were not partisan ones... and voters are beginning to switch: feminists vote for Democrats and evangelicals vote for Republicans (Freeman 1993).

To bolster her argument, Ms. Freeman notes some conservatives see much the same thing, citing Pat Buchanan's controversial speech before the 1992 Republican Convention in Houston where he said:

This election is about much more than who gets what. It is about who we are. It is about what we believe, it is about what we stand for as Americans. There is a religious war going on for the soul of America. It is a cultural war, as critical to the kind of nation we will one day be as was the Cold War itself.... (R)adical feminism (is) the agenda Clinton and

Clinton would impose on America -- Abortion on demand, a litmus test for the Supreme Court, homosexual rights, discrimination against religious schools, women in combat. It is not the kind of change we can tolerate in a nation that we still call God's country (Freeman 1993).

Mr. Buchanan is concerned with the same issues as Inglehart, albeit from a different, polemical side.

So, across the ideological spectrum, numerous scholars and political figures who have little in common see much the same type of cultural shift occurring. The theme of de-emphasizing redistributive issues in favor of a particular set of social ones recurs over and over. Inglehart alone, however, has done the important scientific work of operationalizing and quantifying indicators of these trends through patterns of answers to standardized crossnational, time-series surveys, so that they can be more readily and rigorously be examined.

SECTION B: CRITIQUE OF INGLEHART

I Overview

As already noted, Inglehart proposes two causal mechanisms for the shifting distribution of values. The first is a kind of economic determinism based on Maslow's theories, where one's level of financial and physical security directly impacts one's childhood value formation. The other is a kind of idealism, where the shape of the social, environment, the communication network in which one is immersed, shapes one's view of the world and one's values. Hence the economic circumstances one faces as a child and the social environments of university students and nonstudents produce the same result. Inglehart errs by positing two unrelated causes for one effect when one: the socializing effect of various communication networks, especially within universities, both suffices and fits his own data better. As we shall see, several scholars question Inglehart's evidence for his economic cause, saying education is a stronger predictor. This effort differs from others in that it investigates the influence of Maslow upon Inglehart, and how that influence relates to the problems with Inglehart's work. While critics such as Flanagan, Duch and Taylor suggest that education as learning is the real cause of the values in question, this writer holds that it is not simply learning, but the specific content and character of the social environment of the university that impart the salient values. It will be shown that individuals' specific religious affiliation, not just belief or absence of belief, shows a very strong association with the values battery. Focussing on social environment rather than learning as such allows one to apply a single explanation for the impact of both specific religious affiliation and the university experience upon values.

I
**Inglehart and Maslow:
How They Are Linked**

The link between Inglehart and Maslow is explicit. Regarding his twelve question values battery, Inglehart says:

These twelve options were designed to explore Maslow's (1954) hierarchy of needs.... Six items were intended to emphasize the physiological needs, "rising prices," "economic growth," and "stable economy" being designed to tap emphasis on economic security and "maintain order," "fight crime," and "strong defense forces" designed to tap emphasis on physical security.... (B)oth are Materialist in that they are directly related to physiological survival. We hypothesized that they would tend to go together, with only those who feel secure about the satisfaction of both types of needs being likely to give top priority to belonging, self-expression, and intellectual and aesthetic satisfaction--needs the remaining items were designed to tap. The remaining six items were designed to tap various Postmaterialist needs. Every human being has a need for esteem and aesthetic satisfaction, and an inherent intellectual curiosity. Thus one finds art and music and other products of the search for beauty in all societies, and one finds magic, religion, myths, or philosophy, reflecting the desire to understand and interpret the meaning of life in even the poorest societies. Hungry people may not give top priority to aesthetic and intellectual concerns, but given some respite from the struggle for survival, people will act on these needs unless circumstances force them to stifle them (Inglehart 1990, 133).

The need hierarchy argument, in its simplest form, is difficult to dispute: a person who is in immediate fear of violence, or who is freezing and hungry, cannot be concerned with painting, poetry or popularity. Immediate needs preoccupy such a person. However, Maslow and Inglehart go far beyond that simple proposition. Inglehart says early life insecurity or security molds one like clay to tend toward the values that preoccupied one as a child. The argument for a hierarchy of needs gains its strength from the immediacy of the needs in question: if current needs such as food or shelter are unmet, one must preoccupy oneself with meeting them. If such basic needs are met, needs such as belonging and esteem can be considered. Insofar as they are truly *needs*, an individual must attend to the current immediate need, to the neglect of less important needs. Since the reason needs further down the

hierarchy are to be de-emphasized is that more basic, immediate needs are unmet and hence an individual must organize her thinking and behavior to the end of meeting the more immediate needs, the logic of need hierarchies does not apply to long term tendencies that are detached from actual, current conditions. As Inglehart notes given even a brief respite from hunger, even people in the poorest societies will attach high levels of importance to aesthetic and intellectual matters. Nonetheless, Inglehart and Maslow both use the need hierarchies idea as if it did much more than affect people in immediate need, causing them to address their most pressing needs first. They use it to account for highly detailed characteristics of individuals, far removed from individuals' efforts to meet their immediate needs.

Inglehart links Postmaterialism to specific values and concerns - - a detailed liberal social agenda, a concern with personal expression, and a desire to inform oneself politically, and affect the content of political decisions rather than just the personnel holding office. These closely mimic the highly detailed, highly specific characteristics Maslow attributes to 'self-actualizing' individuals, at the highest end of the need hierarchy. The terms Materialist and Postmaterialist are based on the idea that Materialists' values are determined by their material needs, while Postmaterialists are higher up on Maslow's ladder toward self-actualization. Maslow's theory, however, is not only untested, but has very serious methodological problems. Inglehart's reliance upon the details of Maslow's assertions to formulate his theory is the source of all the more serious problems with Inglehart's work found by this writer and by those scholars whose work this writer has examined.

III Why Maslow Cannot Underlie a Scientific Theory

In his 1954 work: Motivation and Personality Maslow develops his notion of need hierarchies, and their impact upon human personality. In the theory, as an individual, one has a series of sets of needs, each of which must be met in turn before the next set becomes the individual's focus. These are in turn: physiological needs, safety needs, belonging and love needs, esteem needs and the need for self-actualization (Maslow 1954, 84-91). To create his theory about the impact of these needs on personality, Maslow starts by rejecting scientific, empirical methodology, not because of epistemological flaws, or because he has an epistemologically sound alternative, but because he sees the scientific method as old fashioned and constraining:

The questions of the past are no longer questions, but answers. The questions of the future have not yet come into existence. But it is possible to formulate and classify the methods and techniques of the past. These then are termed the "laws of scientific method." Canonized, crusted about with tradition, loyalty, and history, they tend to become binding upon the present day (rather than merely suggestive or helpful). In the hands of the less creative, the timid, the conventional, these "laws" become virtually a demand that we solve our present problems only as our forefathers solved theirs (Maslow 1954, 18).

What Maslow imagines is the traditional approach to science he finds inadequate because it builds slowly upon what has already been done and does not focus on values:

Means-centered orthodoxy encourages scientists to be "safe and sound" rather than bold and daring. It makes the normal business of the scientist seem to be moving ahead inch by inch on the well-laid out road rather than cutting new paths through the unknown. It forces conservative rather than radical approaches to the not yet known.... The proper place for the scientist--once in a while at least--is in the midst of the unknown, the chaotic, the dimly seen, the unmanageable, the mysterious, the not-yet-well-phrased.... *Overstress on methods and techniques encourages scientists to think (1) that they are more objective and less subjective than they actually are, and (2) that they need not concern themselves with values.* Methods are ethically neutral; problems and questions may not be (Maslow 1954, 20).

Values, Maslow feels, are vital for determining what is or is not an important problem:

Using only methodological criteria, the most trivial research could demand as much respect as the most fruitful one.... If science were no more than a set of rules and procedures, what difference would there be between science on the one hand, and on the other, chess, alchemy, "umbrellaology," or the practice of dentistry (Maslow 1954, 21).

Maslow is correct that values determine which problems are important but he fundamentally misconstrues the rules of scientific method. Others preceded him, but Hume gives a good presentation of the nature of scientific methodology. In An Inquiry Concerning Human Understanding Hume observes that, while we understand and explain the world around us in terms of cause and effect relationships, we can never deduce a cause and effect prior to experience of them (Hume 1955). Just as there is no a priori logical necessity requiring billiard ball 'A' to bounce off ball 'B' at symmetrical angles, and proportionate velocities, but rather we observe this fact over and over, and so formulate rules for the motion of objects, similarly in all cases where we infer a cause and an effect, we must base that inference solely upon repeated observation of event A followed by event B. If we can repeat A and we always get B, then we infer a cause and effect relationship between the two. While this constant conjunction may seem inadequate proof of cause and effect, we can never have anything more, or any better reason to infer a cause and effect relationship. Science then, is the hypothesizing of cause and effect relationships. The rules of scientific method consist only in operationalizing one's definitions and criteria for events 'A' and 'B' so that others can examine the work, perhaps reproduce it, and attempt to find a case where 'A' is not followed by 'B', in order to falsify the claim, the hypothesis, that there is a causal relationship between the two. The rules of science are different from chess, alchemy, and dentistry precisely in that they are not a determined, closed set of practices, like a scale on a

musical instrument, or the steps in constructing a machine on an assembly line. The choice of problem, of asserted causes and effects and of experiments or other methods of falsification is a purely creative, open ended endeavor, without set rules. Insofar as some modes of experimentation are preferred over others, it is because they make it easier to isolate a cause, or set of causes, from other, unexamined causes. Maslow, or anyone else, is free to be as 'radical' as they please, so long as they provide a way to operationalize their conclusions and their evidence, so others can examine it and attempt to falsify it. Operationalization is one of the things Maslow fails to do. He asserts his notion of a need hierarchy, then relates a whole range of characteristics as typical of those who are at the top of the hierarchy, without saying how he knows these characteristics are related to need satisfaction rather than some other cause, or even why we should believe that these particular characteristics actually do typify certain types of individuals, whom he labels healthy. Maslow merely asserts he discovered these characteristics in the course of his experience as a clinical psychologist. He selected people who could be called renaissance men: very well read, active and interested in many fields, and with particular values; and examining them, concludes they indeed have particular values. Even this unsurprising conclusion is sullied because he gives no explanation whatsoever of the criteria he used to operationalize the values nor does he give a single example of how any particular individual demonstrates the characteristics he imputes to them.

In chapter twelve of Motivation and Personality, entitled "Self-Actualizing People: a Study of Psychological Health", Maslow purports to be reporting an actual study of self-actualizing, or interchangeably: mentally healthy individuals. Maslow describes his methods:

The subjects were selected from among personal acquaintances and friends, and from among public and historical figures. In addition, in a

first research with young people, three thousand college students were screened, but yielded only one immediately usable subject, and a dozen or two possible future subjects. I had to conclude that self-actualization of the sort I had found in my older subjects was not possible in our society for young, developing people.

Accordingly.... a search was begun for a panel of *relatively* healthy college students.... Wherever possible, Rorschach tests were given, but turned out to be far more useful in revealing concealed pathology than in selecting healthy people. The positive criterion for selection was positive evidence of self-actualization (SA), as yet a difficult syndrome to describe accurately. For the purposes of this discussion, it may be loosely described as the full use and exploitation of talents, capacities, potentialities, etc. Such people seem to be fulfilling themselves and to be doing the best that they are capable of doing, reminding us of Nietzsche's exhortation, "Become what thou art!" They are people who have developed or are developing to the full stature of which they are capable.... These potentialities may be either idiosyncratic or species-wide, so that the self in self-actualization must not have too individualistic a flavor (Maslow 1954, 201).

Maslow has such a restrictive definition of mental health that only one in three thousand screened students qualified as healthy. He sees health as an exact fit to personality characteristics he likes. Even among the handful of historical figures he has selected precisely for their fit to his personality criteria, he divides the subjects into a group who *probably* were mentally healthy, and a group that "fairly certainly fall short somewhat but who can yet be used for study" (Maslow 1954, 203). Having selected his subjects according to his personal, unoperationalized criteria of fit with his notions of proper personality traits, he presents his conclusions, which consist precisely in his own personal, unsupported, unoperationalized "holistic impression" of the subjects' traits:

Data here consist not so much in the usual gathering of specific and discrete facts as in the slow development of a global or holistic impression of the sort that we form of our friends and acquaintances.... The holistic analysis of these total impressions yields, as the most important and useful whole characteristics of self-actualizing people for further clinical and experimental study, the following: (Maslow 1954)

Maslow attaches great importance to the characteristics he imputes to self-actualizing individuals. Here is a list from the book of those characteristics. It gives

a flavor of Maslow's thinking and conclusions. These are alleged to be the direct, unmediated consequence of having satisfied needs, *not* the product of the individual character of one's social environment and upbringing, precisely as the characteristics that Inglehart associates with Postmaterialists, through survey data, are supposed to be attributable to formative security, not social environment. Items closely linked to Inglehart's Postmaterialism and cognitive mobilization arguments are underlined.

The italicized items were italicized in the original:

Some Phenomena That Are in Large Part Determined By
Basic Need Gratification
A. Conative-Affective

1. Feelings of physical sating and glut--food, sex, sleep, etc.--and as by-products--well-being, health, energy, euphoria, physical contentment
2. Feelings of safety, peace, protection, lack of danger and threat.
3. Feelings of belongingness, of being one of a group, of identification with group goals and triumphs, of acceptance, of having a place
4. Feelings of loving and being loved, of being lovable, of love identification
5. Feelings of self-reliance, self-respect, self esteem, confidence, trust in oneself; feelings of ability, achievement, competence, success, ego strength, respectworthiness, prestige, leadership, autonomy, independence
6. Feelings of self-actualization, self-fulfillment, self-development, of more and more complete development and fruition of one's resources and potentialities and consequent feelings of growth, fitness and suitability
7. Satisfied curiosity, feeling of learning and of knowing more and more
8. Satisfied understanding, more and more philosophical satisfaction; movement toward larger and larger, more and more inclusive and unitary philosophy or religion; increased perception of connections and relations; awe
9. Satisfied beauty need, thrill, sensuous shock, delight, ecstasy, sense of symmetry, rightness, suitability, or perfection
10. Emergence of higher needs
11. Temporary or long-run dependence on and independence of various satisfiers; increasing independence of and disdain for lower needs and lower satisfiers
12. Aversion and appetite feelings
13. Boredom and interest
14. Improvement in values; improvement in taste
15. Greater possibility of and greater intensity of pleasant excitement, happiness, joy, delight, contentment, calm, serenity, exultation; richer and more positive emotional life
16. More frequent occurrence of ecstasy, orgasmic emotion, exaltation, and of mystic experience
17. Changes in aspiration level
18. Changes in frustration level

B. Cognitive

1. Keener, more efficient, more realistic cognition of all types
2. Improved intuitive powers
3. Mystic experience
4. More reality-object-and-problem centering; less projection and ego centering
5. Improvement in world view and in philosophy (in sense of becoming more true, more realistic, less destructive of self and others, etc.)
6. More Creativeness, more art poetry, music, wisdom, science
7. Less rigid robotlike conventionality; less stereotyping, less compulsive rubricizing...; better perception of individual uniqueness through screen of man-made categories and rubrics
8. Many of the more basic, deeper-lying attitudes (democratic, basic respect, affection for others, love and respect for children, respect for women, etc.)

9. Less affective learning (preference for the familiar) especially for important things
10. More possibility of incidental or latent learning

C. Character Traits

1. Calmness, equanimity, serenity, peace of mind (opposite of tension, nervousness, unhappiness, feeling miserable)
2. Kindness, kindness, sympathy, unselfishness (opposite of cruelty)
3. Healthy generosity
4. Bigness (opposite of pettiness, meanness, smallness)
5. Self-reliance, self-respect, self-esteem, confidence, trust in oneself
6. Feelings of safety, peacefulness, lack of danger
7. Friendliness (opposite of character-based hostility)
8. Greater frustration tolerance
9. Tolerance of, interest in, and approval of difference and therefore loss of prejudice and generalized hostility (but not loss of judgment); greater feeling of brotherhood, comradeship, brotherly love, respect for others
10. Character-based optimism
11. Psychological health and all its by-products; movement away from neurosis, psychosis (?), and psychopathic personality
12. More profoundly democratic (fearless and realistic respect for others who are worthy of it)
13. Relaxation, less tense
14. More honesty, genuineness, and straightforwardness; less cant, less phoniness

D. Interpersonal

1. Better citizen, neighbor, parent, friend, lover
2. Political, economic, religious, educational liberalism
3. Respect for opposite sex, children, employees, and other minorities or groups with less power
4. More democratic, less authoritarian
5. Less hostility and more friendliness, more interest in others, easier identification with others
6. Better taste in friends, sweethearts, leaders, etc.; better judge of people
7. Nicer person, more attractive; more beautiful
8. Better psychotherapist

E. Miscellaneous

1. Changed picture of heaven, Utopia, good life, etc.
 2. Loss of Hell concept
 3. Changes in all expressive behavior, e.g., smile, laugh, facial expression, demeanor, walk, handwriting; movement toward more expressive behavior and less coping behavior
 4. Energy changes, lassitude, sleep, quiet, rest, alertness
 5. Hopefulness, interest in future (opposite of loss of morale, apathy, anhedonia)
 6. Changes in dream life, fantasy life, early memories (9)
 7. Changes in (character-based) morality, ethics, values
 8. Changes in type of guilt and shame
- (Maslow 1954, 120-122)

Where these characteristics are not just praise for those with values he likes (better taste in friends, more attractive, better psychotherapist, etc.) they are a pastiche of characteristics he favors, and which are used to select the individuals he declares to be self-actualized. In a later work, Maslow says:

I have found to my dismay that some intelligent and capable psychologists... persist in treating my empirical descriptions of the characteristics of self-actualizing people as if I had arbitrarily invented these characteristics instead of discovering them (Maslow 1962, vii).

The problem in both his 1954 book, upon which Inglehart relies, and in Maslow's later work, is not that he invents the characteristics. Such characteristics exist. The problem is he selects subjects for those characteristics, then finds it significant when his subjects partially fit his model of expected characteristics, when that fit is judged on the basis of "holistic impression". His methodology guarantees the desired results in advance. Furthermore, Maslow does nothing at all, not even a fake experiment like those described above, to link self-actualization characteristics with satisfied needs, beyond simply asserting that they are connected.

IV Inglehart's Own Arguments Undercutting His Economic Determinism

In order to retain his Maslowian economic determinism, Inglehart disagrees that social or communication based factors alone could account for the phenomena he describes, but in many places he recognizes that the social, linguistic environment is very important:

The study of political culture is based on the implicit assumption that autonomous and reasonably enduring cross-cultural differences exist and that they can have important political consequences. (Inglehart 1990, 25)

A few pages later he ascribes enduring national differences in life satisfaction to attitudes, based upon expectations, being transmitted to children:

We suggest that the cultural component of these cross-national differences reflects the distinctive historical experience of the respective nationalities. Long periods of disappointed expectations give rise to cynical attitudes. *These orientations may be transmitted from generation to generation through preadult socialization. Insofar as early learning tends to be relatively persistent, this contributes to the stability of distinctive cultural patterns.* (Inglehart 1990, 30-31) (emphasis added)

This suggests economic factors operate through a social, communication network mechanism, not directly. Such a mechanism is quite different from Maslowian need hierarchies, where physical conditions directly affect one's particular values. Here he contradicts his subsequent assertion, already mentioned, that communication patterns may be important in the university milieu, but an economic variable is needed to explain how children develop predispositions toward particular values. (Inglehart 1990, 77) He clings to economic determinism, mirroring Maslow's need hierarchies, despite his own contrary arguments and examples.

When Inglehart discusses culture shift in Japan he notes:

... certain items that show Postmaterialist polarity with remarkable consistency throughout the West have neutral or even reversed polarity in the context of Japanese society. This is an important finding. It implies that the nonphysiological part of Maslow's hierarchy of needs is not a universal human pattern, but is contingent on culture. Maslow provides a provocative hypothesis, which helped guide the formulation of our twelve-

item battery. But his thesis is only partly tenable (Inglehart 1990, 152). Inglehart concedes that the nonphysiological part of Maslow's hierarchy is not universal, but contingent on culture - - defined implicitly as the values and worldview of one's social environment. Yet his whole theory of the nature of culture shift is based upon the idea that economic factors representing Maslow's need hierarchies, not social environment, produce the salient value structures.

In another place Inglehart says:

Democracy emerged when power passed into the hands of the bourgeoisie.... Preindustrial agrarian societies are usually dominated by landed aristocracies exercising a military function or by priestly elites, both of which are accustomed to social relations based on a hierarchical chain of command structure. Commercial elites, by contrast, necessarily become accustomed to bargaining: In market relationships the buyer and seller may have diametrically opposed interests--the seller seeking the highest possible price and the buyer the lowest--but unless they can reach a compromise that is acceptable to both sides, neither can do business. Thus, commercial elites accept bargaining among equals, rather than hierarchical authority, as a normal way of dealing with people; these habits and skills are carried over into the emphasis on bargaining, rather than command, that characterizes parliamentary democracy (Inglehart 1990, 46).

Here Inglehart sees democratic values arising not out of some preset, congenital need priority, but from the particular character of the patterned social interactions individuals participate in during their daily lives. The form of those games imply particular values, which become the values of those brought up within the environment. What is crucial here is that economic and societal factors do not act directly; they do not simply create values, but rather impact upon the character and form of personal interactions, conversations, and the use of language in general. Social, interactive factors transmit values across generations, not the economic environment *per se*, which does not in itself have a mechanism for transmitting specific values but which does impact upon the social environment, the daily group activities of individuals, which in turn affects values. Yet when Inglehart goes on to postulate likely causes for the changes in values in advanced industrial society, he

forgets the import of this example. He abandons this avenue to incorporate Abraham Maslow's need hierarchies and make his picture of society congruent with what Maslow presents in Motivation and Personality (Maslow 1954).

**Postmaterialism versus Materialism:
Inglehart's Concept Does Not Capture the Emerging
Polarization Over Social Issues He Documents**

The categorization of values as Materialist and Postmaterialist, which forms the backbone of Inglehart's theory of culture and culture shift, is derived from Maslow's theories and conflicts with Inglehart's own data and many of his own arguments. The broad features of partisanship in the U.S. are also inconsistent with Inglehart's Materialist-Postmaterialist paradigm. Inglehart, Wildavsky, Freeman and pundits such as Pat Buchanan, agree the nature of partisan polarization has changed, so that various social, lifestyle issues constitute the polar divisions in society today. Inglehart says the split is between Materialist and Postmaterialist. If right of center Republicans are simply more 'Materialist' value oriented than groups dominating the Democrats, then Republicans should focus more on the economy and less on lifestyle issues than the Democrats, yet, as Pat Buchanan's views highlight, if anything they focus more on such issues. To avoid this logical problem, Inglehart portrays movement conservatism, groups like the Moral Majority in the U.S., and the rise of groups like the National Front in France as reactions to change rather than actual concern over social issues. This fails to address the problem because it begs the question of why they devote such time and resources to reacting to social issues that are not really of interest to Materialists. If conservatism is really Materialism, it should have a different set of issues, not just opposition to what he regards as Postmaterialist issues. Furthermore the Old Left should be as Materialist as conservatives, if not more so, considering their lower socio-economic status constituencies, yet they are not. Correspondingly, old-wealth Republicans should be highly progressive on the social issues, or at least more concerned with them than economic issues, yet they are not. Inglehart notes that evangelical Christians have switched from the Democratic party to the Republican party, as they have switched

from emphasizing being left alone to emphasizing influencing government, and feminists, and women in general, have abandoned the Republican party, to a degree, in favor of the Democratic party. Nonetheless, the traditional concerns of the Left have tended to ally with the newer issues, so that both inhabit the Democratic party, while the Republican party contains both the traditional anti-welfare state Right, and the newer outspoken focus on social conservatism. This is not consistent with Inglehart's assertion that the new polarization is really Materialist, security and money oriented, versus Postmaterialist, lifestyle oriented. However, if social factors such as exposure to the university milieu cause the values in question, not his causal mechanism, then this problem vanishes.

VI
**Inglehart's Evidence at the National
and Individual Level**

Inglehart presents two types of evidence supporting the idea that prosperity and peace have actually induced a feeling of security in individuals during their pre-adult years, causing more of them to adopt Postmaterialist values. The first is a nation-level argument which relates differing rates of movement toward Postmaterialist values to differing economic histories. The second is an individual-level argument, linking parental socio-economic status with respondents' value priorities.

At the nation-level, Inglehart notes that West European publics, especially the Netherlands, Denmark and West Germany, have shifted toward Postmaterialism at a greater rate than the United States. To account for the differing rate of change he argues:

This contrast between Western Europe and the United States apparently reflects the facts that (1) throughout the first two-thirds of the twentieth century, the United States had the highest per capita income in the world; and (2) compared with the devastation it wrought in Western Europe, World War II had a relatively mild impact on the United States. Thus, the *older* American cohorts brought up under conditions of greater economic and physical security than those prevailing in Western Europe. But during the past four decades, the American economy has been relatively stagnant. West European countries have attained high levels of prosperity, and their relatively advanced social security systems have contributed to an atmosphere in which their younger cohorts have grown up with a sense of security as great or greater than that prevailing in the United States (Inglehart 1990, 92).

There are several flaws in this line of reasoning. If early life prosperity and security induces an enduring tendency toward Postmaterialist values, then the crucial factor should be *absolute* levels of prosperity, not relative levels or rates of growth in prosperity. U.S. economic growth has slowed but per capita GDP, averaged over five year periods has risen continuously. (OECD 1987) Furthermore, as late as 1986, U.S. per capita GDP was more than half again that of any European

country Inglehart examined (OECD 1987). If security, defined by national economic prosperity, causes Postmaterialist birth cohorts, once a nation reaches a threshold of prosperity sufficient to produce many Postmaterialists, economic stagnation should not stem this production unless *absolute levels of individual prosperity actually decline substantially*. A decline in the *growth rate* of absolute standards of living should not slow culture shift. It is possible that relative deprivation could cause Materialism, but in such a scenario, the causal mechanism would not be security or insecurity but rather a socially conditioned perception of one's relative status, or some other non-material cause.

One can rank the countries according to the ratio of Postmaterialist respondents, using Inglehart's data, to look at the social welfare net hypothesis:

Table 1.*

Netherlands	+8	France	-19	Greece	-32
West Germany	+7	Belgium	-23	Portugal	-46
Denmark	-3	Italy	-24	(Inglehart 1990, 93)	
Great Britain	-7	Ireland	-28		
United States	-7	Spain	-30		

* The numerical scores represent the percentage of Postmaterialist respondents minus the percentage of Materialist respondents. Hence a positive number means more Postmaterialists than Materialists.

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The three most Postmaterialist countries: the Netherlands, Denmark and Germany, are all Germanic, Protestant, and have the largest populations of Lutherans and Calvinists. Great Britain and the U.S., both historically overwhelmingly Protestant, are next in line. After them, the proportion of Materialists jumps sharply. All these more Materialist countries are dominantly Catholic, except Orthodox Greece. While several of the Catholic countries are also poor, and so on their face not inconsistent with Inglehart's hypothesis, France, which is prosperous and has fairly complete social security nets, has higher percentages of Materialists, yet lower levels of Postmaterialists, both at the national level and the level of the youngest cohort, than the United States². Other scholars have also noted that France should be more Postmaterialist if Inglehart is correct. (Weakliem 1991, 1336) If economic prosperity and a broad welfare net are the crucial variables in youthful political socialization, then France is anomalous. However, if not, then social factors such as religion or education may explain the lower level of Postmaterialism. Weber, of course, argued that cultural factors related to Catholicism and Protestantism produced those enduring economic differences to begin with. As table 2 shows, scores on the values battery vary tremendously with

² In the 1987 Eurobarometer surveys, France showed 33% Materialists, and 14% PostMaterialists, over the whole population, versus 23% Materialists and 16% PostMaterialists in the United States.

religion in the 1987 Eurobarometer data. Catholics have several times as many Materialists as Postmaterialist, Protestants are closer to an even split, and those who reject the tenets of organized religion are twice as likely to be Postmaterialist as Materialist:

Table 2.**Religious Affiliation
With Values**

	Catholic	Protestant	Other	None	Row Total
Materialist	2449	384	87	297	3217 29.9%
Mixed	3395	1166	193	1037	5791 53.9%
Post- materialist	713	348	49	628	1738 16.2%
Column Total	6557 61.0%	1898 17.7%	329 3.1%	1962 18.3%	10746 100.0%

Inglehart has suggested a link between religion and Postmaterialism, but only in terms of rejection or acceptance of Judaeo-Christian norms, where Materialists, feeling insecure, cling to traditional norms. Such an explanation does nothing to explain stark variations among the different Christian churches. Regression 1 in Appendix B looks at the relative impact of both education and religion on the values battery, each controlled for the impact of the other, in the same 1987 survey examined in table 2. Both have significant positive linear associations with the battery, with slopes of .23 for education and .28 for religion, suggesting that religion is a stronger factor than education. Education is the strongest factor examined by Inglehart, but he never examines particular religious affiliation. Age is also examined in Regression 2, and the slope of the religion line is unaffected, while that of education is reduced to .16. Education's impact is lessened when age is taken into account because older generations have both lower levels of education and lower levels of Postmaterialism.

Looking at Inglehart's values data for only the youngest age cohort, we obtain the following sequence:

Table 3.*

West Germany	+26	Spain	0	Belgium	-12
Netherlands	+24	United States	-3	Greece	-14
Denmark	+7	Italy	-8	Portugal	-28
Great Britain	+7	France	-10	(Inglehart 1990, 93)	

* As in table 1, the numerical scores represent the percentage of Postmaterialist respondents minus the percentage of Materialist respondents. Hence a positive number means more Postmaterialists than Materialists.

As in table 1, the numerical scores represent the percentage of Postmaterialist respondents minus the percentage of Materialist respondents. Hence a positive number means more Postmaterialists than Materialists. With the sole exception of Spain, the Protestant tendency toward greater

Postmaterialism remains even though Catholic France and Belgium are wealthier, and Italy nearly as wealthy as Britain. (OECD 1987) Spain has had a very rapid, extreme shift to Postmaterialism. If it is due to economic prosperity, not social factors such as the university environment, then there should be a sharp rise in Spanish prosperity, to the point where Spain is more prosperous per capita than the U.S., France Belgium, Italy or Ireland; the countries whose youngest cohorts are more Materialist than Spain. Since education is alleged to relate to values through the mediation of its impact upon security, explosive economic growth in Spain should improve the position of those who are not university educated, and bring general security, so the correlation of education with values should be considerably less in the younger Spanish cohorts than the older, especially as the proportion of students increases, reducing the advantages of being one. Since the shift has been quick, and applies principally to the youngest generation, the comparison should be between the youngest cohorts as one group and all others as the second group. Tables 4 and 5, below, are crosstabulations of education with values, in Spanish respondents aged fifteen to thirty-five, and thirty-five -plus, respectively. In both cases lambda has a value of approximately .097, or .1, with the values question the dependent variable. This means that in both groups knowing a respondent's education level reduces the errors in guessing their values score by ten percent. There is no difference between

the impact of education in the two groups:

Table 4.

Crosstabulation of Values With Education, in Spain
Among Young Respondents, Age 15-34

		Years of Education				Row Total
		15 YEARS OR LESS 1	16-19 YEARS 2	20+ YEARS 3	STILL STUDYING 4	
V a l u e s	1 MATERIALIST -COD	39	22	5	8	74 19.0%
	2 MIXED -CODED 1 -	81	55	29	62	227 58.2%
	3 POST-MATERIALIST	12	19	21	37	89 22.8%
Column Total		132 33.8	96 24.6	55 14.1	107 27.4	390 100.0%
Chi-Square		Value		DF	Significance	
Pearson		42.83131		6	.00000	
Statistic		Value		ASE1	Val/ASE0	
Lambda :						
symmetric		.05938		.01574	3.63130	
with V393		.00000		.00000		
with V367		.09690		.02578	3.63130	

Table 5.

Crosstabulation of Values With Education, in Spain
Among Respondents Age 35+

		Years of Education				Row Total
		15 YEARS OR LESS YEARS 1	16-19 YEARS 2	20+ YEARS 3	STILL STUDYING 4	
V a l u e s	1 MATERIALIST -COD	226	22	15	2	265 49.9%
	2 MIXED -CODED 1 -	166	28	29	8	231 43.5%
	3 POST-MATERIALIST	15	8	12		35 6.6%
Column Total		407 76.6	58 10.9	56 10.5	10 1.9	531 100.0%
Chi-Square		Value		DF	Significance	
Pearson		46.11439		6	.00000	
Statistic		Value		ASE1	Val/ASE0	
Lambda :						
symmetric		.06667		.02491	2.56526	
with V393		.09774		.03642	2.56526	
with V367		.00000		.00000		
Number of Missing Observations:		77				

Regression analysis of the same variables with the salient poles of Materialism and Postmaterialism, excluding the mixed category, in Regressions 4-5, yields a slope of .4 and goodness of fit R^2 of .24 for the regression line in the younger generation, but .33 in the older generation, with an R^2 of .12. This suggests that high levels of education may have a bigger impact on values now than in the past, while if Inglehart's economic mechanism operates, education should be less important than in the past. Looking again at tables 4 and 5, among Spanish respondents over thirty-five, 487 out of 531 have less than fifteen years of education, while among younger Spaniards there is a much broader mix. To explain why Spain has leaped ahead of several other countries in Postmaterialism among the young, note that very few older Spaniards are well educated: the growth in education is explosive but per capita GDP, while increasing, was \$4,255 in 1985, while that of

the U.S. was \$16,494; France's was \$9,251 and Italy's was \$6,278. (OECD 1987) While education alone does not perfectly predict Postmaterialism, it is difficult to reconcile these much higher levels of prosperity with Spain's rapid shift to Postmaterialism without abandoning Inglehart's economic cause of value change. Inglehart's nation-level evidence for his proposed explanation for culture shift is far from conclusive, and education, while not perfect, has a better fit to his own data. The most striking features of the tables are the absence of education in older generations, the stark increase in the number of people who are educated, the increase in the proportion of Postmaterialists to Materialists, and the tendency visible in both groups for Postmaterialism to increase with education and for Materialism to decrease with education.

The second type of evidence Inglehart presents to support his economic engine is an individual-level argument concerning the socio-economic status of both the respondent and his parents. He observes that professionals and executives and the better educated have higher proportions of Postmaterialists than manual laborers. He suggests that "(o)ne's education is another indicator of economic status and security" and notes that "(t)he relationship of value type with education is even stronger than the relationship with occupation" (Inglehart 1990, 165) To account for this, Inglehart notes that immersion in the educational environment *may* itself encourage Postmaterialist values, but prefers another interpretation:

Education may be a stronger predictor of value type because it gets closer to the key causal factor, which is formative security. The respondent's occupation is a reasonably good indicator of one's current economic level. But one's education is an indicator of how prosperous one's *parents* were. It is correlated with current income as well, of course, but particularly in Europe, whether or not one went to secondary school is strongly influenced by the socioeconomic status of one's parents (Inglehart 1990, 165).

To measure parental socioeconomic status, Inglehart combines the variables of manual versus non-manual labor, and level of education, producing an index

dividing respondents' parents into low, medium, and high status. Comparing parental socioeconomic status with respondent's status, he reports:

Thus, in the Dutch case, the respondent's own socioeconomic status is a slightly stronger predictor of the respondent's values than is the respondent's father's socioeconomic status... What is even more surprising, however, is the fact that in each of the other three countries for which we have data, the father's SES is a *stronger* predictor of the respondent's values than is the respondent's own SES (Inglehart 1990, 167).

Naturally, he concludes that parental SES, as he measures it, is a measure of the security of the respondent's childhood, and so concludes that this data support his explanation. That his data show education to be a crucial influence is a difficulty for Inglehart. To get around it he construes education as a measure of formative security. As Inglehart notes, parental status affects the likelihood of attending a university. However, even granting that to some extent education reflects parental prosperity, Inglehart gives no reason to assume that education is more closely connected to parental prosperity than is occupation.

The second argument observes that parental socioeconomic status, defined as a mix of education and job type, is the best values predictor among the potential causes he examines. To justify using education as a measure of security, he asserts:

One's education is another indication of economic status and security.... The relationship of value type with education is even stronger than the relationship with occupation (Inglehart 1990, 167).

So combining it with occupation gives a better picture of the well being of the parent, and hence the level of formative security of the respondent. This argument is fallacious. Education is a measure of security only insofar as it influences employment. While education relates to prosperity, it can only do so precisely *through* its impact upon occupation. If formative economic security is the cause of culture shift, then education should not *independently* influence those values. This point is crucial. There is *no* actual mechanism other than occupation that *could*

produce security as a result of education. The social welfare nets Inglehart thinks lead to Postmaterialism do not base their cash payments, housing for the poor and health care on years of education. If Inglehart were correct, education's impact *must* be mediated through occupation, but it is not.

Ranking the most powerful predictors of Inglehart's values measure in order of their strength: father's education is the most powerful factor, followed by mother's education, then father's occupation, then respondent's education (Inglehart 1990, 121). Respondent's occupation does not make the list. Inglehart imputes this list to be a measure of formative security. For the reasons given above, the independent influence of education is inconsistent with that interpretation. However, all five of these variables can be construed as measures of the social milieu and hence the language-game environment of the respondent. The fact that parental factors are more important than personal factors can easily be construed as supporting the notion that one's values reflect the impact of one's early social environment, and the values of one's parents, communicated directly and indirectly by the way they speak and behave.

Note that mother's education has a higher correlation with the respondent's values than father's occupation. Occupation determines a major part of one's social milieu, and may have characteristic values, much in line with Inglehart's example of the differing values of landed aristocrats and of an industrial bourgeoisie. Hence, occupation could be expected to influence values. While no mechanism exists for a non-working mother's level of education to impact a child's level of formative security, it does influence the character of the social environment of a child. Such influence can range from the reasons given for why something is wrong, household rules of behavior, different games played with the children, types of story books read at bedtime, day to day attitudes, tone of voice, expectations and so on, to

differing vocabularies. The idea that language use affects how one sees the world is not new. Philosopher Ludwig Wittgenstein, sociologists Benjamin Whorf, Edward Sapir and others have all put forth such views (Wittgenstein 1967, Whorf 1956, Sapir 1990). Basil Bernstein observed in 1959 that there seemed to be systematic differences in the uses of language by the university educated and the rest of society, and that these differences impacted the way individuals see the world (Bernstein 1959).

How can one test whether education impacts his measure through security? Simply controlling for occupation is one way. In Inglehart's data, education has a strong independent impact when controlling for the occupation of the respondent and for the occupation of the parent. In fact, as has been noted, the education of the respondent has a higher correlation with values than direct measures of security such as the occupation of the respondent and the parents of the respondent. Another test is to look at a disadvantaged group. All non-white Americans, who are mostly blacks, with hispanics a distant second, would be, on average, less secure than the average American, regardless of education, especially in the older, pre-civil rights cohorts. Education might increase security, but the absolute level after education would be lower, so Postmaterialism should be lower among educated non-whites than educated whites.

No survey with Inglehart's values battery and a race question was available for this work, so in lieu of it, items on the 1990 General Social Survey with similar import as his battery were used to create a Postmaterialist to Materialist scale. It is not identical, but arguably at least as representative of individuals' relative concern with free expression relative to national order as Inglehart's scale. The code used to produce the scale, and an explanation of why each variable was included are in Appendix C. To assess whether this scale was a viable alternative to Inglehart's, a

number of simple tabulations were done between the measure and several of the social views Inglehart finds linked with his measure. This measure shows a similar relationship to age cohort as Inglehart's measure, and shows the same directional relationship to views on divorce, abortion and homosexuality as Inglehart's measure. Additionally, it shows a similar strong association with education. (See Appendix A, Tables 6-10) This suggests that it captures the same values group, and is a viable alternative measure.

As tables 11 and 12 (Appendix A) show, while non-whites are more Materialist than whites as a whole, if one looks only at those who are well educated, non-whites are more Postmaterialist than whites, while if formative security is the cause of Postmaterialism, not social factors, they should be less Postmaterialist.

VII Other Critics of Inglehart

That university education rather than formative security is the source of the values Inglehart discusses is not unique to this author. A number of critiques have made that point, although without addressing Inglehart's assertion that education is really a measure of formative security, not an independent factor.

In an article considered by some to be the seminal critique of Inglehart, Scott Flanagan presents evidence suggesting that Inglehart's measure does not capture one value dimension but two: an acquisitive-nonacquisitive dimension, and a libertarian-authoritarian dimension. Flanagan finds the acquisitive-nonacquisitive dimension associated with current economic conditions and lifecycle effects. The young and old, both insulated from actually making a living, are less acquisitive than those in between, and those doing better currently than in past years are less acquisitive than those doing worse, regardless of actual affluence (Flanagan 1982). According to Flanagan, this pattern is not related to the other issues in Inglehart's battery. The rest cluster together as a measure of the libertarian-authoritarian dimension.

Regarding the impact of affluence on libertarian values in his data, Flanagan says:

For the 1967 data set, insignificant negative relationships between libertarian values and the two affluence measures become significant negative relationships when controlled for education, suggesting that it is actually the higher status Japanese strata that are the defenders of traditional authoritarian values. In 1976, a significant positive relationship between affluence and libertarian values completely disappears when we control for the effects of education (Flanagan 1982, 419).

Hence, Flanagan finds education to be closely associated with libertarian values, which differ from Inglehart's Postmaterialist values in their exclusion of the issue of economic security, but are similar in most other ways. Unlike this writer, Flanagan does not attribute the influence of education to the social environment of universities, but feels "education implies a process of enlightenment whereby traditional folkways are gradually replaced by the most modern and current

concepts of human society" (Flanagan 1982, 418).

David Weakliem presents evidence that in France, the Netherlands and Italy, as family income increases, support for traditional, anti-redistribution politics of the right increases, but support for Postmaterialist, socially liberal politics is unaffected. At the same time, as respondents' education increases, the likelihood of Postmaterialist, or socially liberal politics increases, irrespective of class or family income (Weakliem 1991, 1353-1354). Pfeiffer and Côté argue that Postmaterialist values are the product of prolonged identity crises, in conjunction with the particular environment of higher education, and note that regarding education's influence:

... in fact, relatively high correlations have been observed. Dalton (1977), for example, reports partial correlations in the magnitude of .30 when controlling for cohort effects (see also Inglehart, 1971, and Lafferty, 1976). Little attention has been paid to these findings, however, because the framework developed by Inglehart has been unable to account for them (Pfeiffer and Côté 1991).

Duch and Taylor (Duch and Taylor 1993) attack Inglehart's theory on several grounds. At the cohort level of analysis, Duch and Taylor find that age and inflation level at the time of the survey are the most powerful predictors of Postmaterialism, followed by other measures of economic conditions at the survey time. Their model explains 46% of the variance in Postmaterialism. However, this high level of explanatory power may be the result of period effects that are irrelevant, and which Inglehart addresses both in his 1990 book and his most recent, 1994 article. The explanatory power of age may simply reflect that Inglehart is correct that intergenerational change is occurring. Economic conditions at the time of political maturation show no correlation with Postmaterialist values at the cohort level, except a slight one with inflation in two of eight countries. At the individual level, they find education is by far the most powerful predictor of Postmaterialism, with a standardized coefficient of .30. Age and urbanization are also significant,

but at a much lower level. For these reasons Duch and Taylor conclude:

Education is an important predictor of how Inglehart's items are ranked. We would argue that this has little to do with economic security at the time of maturation (the absence of a macroeconomic effect attests to this) but is rather a reflection of the nature of the items included in the measure. The items tap certain fundamental democratic values--liberty and rights consciousness, for example--and the better educated simply have had more of an opportunity to learn to appreciate such principles. This is consistent with much of the literature on democratic values.... (Duch and Taylor 1993).

Alex Inkeles is dubious about formative security too:

(t)o establish whatever role parental status might play, Inglehart... (uses another survey)... In the four countries with relevant data, crosstabulating the value types and the status of the parent when the respondent was between 10 and 18 years old, yielded a median gamma of .20, which may not be trivial, but is hardly compelling in arguing that affluence and security in the formative years is a truly *powerful* determinant of Postmaterialism (Inkeles 1991, 305).

Duch and Taylor examine GNP as a measure prosperity, and conclude that, while in a bivariate analysis, GNP at time of maturation shows a significant impact on values, in a multivariate analysis of the relative importance of several variables, including education and other factors, the impact of GNP at time of maturation vanishes and education becomes the most powerful predictor of values. This suggests GNP per capita at time of maturation has an impact through intermediary variables, especially education. Others also criticize the role of economic factors in Inglehart's analysis. Clarke and Dutt argue that short term economic conditions strongly affect Inglehart's four question battery, so that high inflation such as in the late 1970's produces high measures of Materialism, due to the "fight rising prices" option, and high unemployment in the early 1980's produced a slight tendency toward Postmaterialism, because people chose "give people more say in government" in the absence of an unemployment question (Clarke and Dutt 1991). Clarke and Dutt look at 1976 to 1986 and find no shift toward Postmaterialism in several countries, and in the rest, these short term economic effects account for the appearance of a shift (Clarke and Dutt 1991).

VIII Inglehart's Response to His Critics

Inglehart responds to some of his critics in a recent article co-authored with Paul Abramson. They rescue Inglehart's assertion of a shift toward what they label Postmaterialism, but compound the difficulties with that categorization and say little about the impact of education.

In response to Clarke and Dutt, Inglehart and Abramson point out that the theory of intergenerational shifting in values, working largely through generational replacement, calls for a very slow rate of change, so in the short run periodic effects or sampling error can swamp and obscure the general trend, but in the longer run, the cumulative change can be large. They then note that Clarke and Dutt only examine the period from 1976 to 1986, when they could have examined 1970 to 1990³. Inglehart and Abramson then present European data from 1970 to 1992 and show, much as Inglehart did in Culture Shift, that his measure varies sharply with inflation, so for short periods the effect of inflation is much greater than cohort differences. However, over the full twenty-two years the cumulative effect is clear (Inglehart and Abramson 1994, 342). The period effect of inflation, they note, is likely due to their values measure including a question on inflation. Beyond their arguments, when they graph each cohort's Postmaterialists minus Materialists over time, with the inflation rate superimposed over the graph, it is striking that while each cohort's score shifts dramatically with inflation, cohorts vary together, maintaining their distance from one another (Inglehart and Abramson 1994, 342).

To refute Clarke and Dutt's data suggesting high unemployment is associated

³ Clarke and Dutt justify this by citing Flanagan's (Flanagan, 1982) argument that the best test of Inglehart's measure would be its stability during a period of time when the political salience of several items on the scale are changing dramatically. Hence, times of inflation are especially relevant. While such times are arguably a good test of whether Inglehart's battery measures what it purports to, such periods are not a test of the very different question of whether or not value change is occurring.

with rising Postmaterialism, not Materialism, Inglehart and Abramson note that this correlation is present only from 1980 to 1985: periods marked by much sharper *drops* in inflation. Over the longer, twenty-two year period they examine: "(t)he most striking feature of the relationship between unemployment and Materialist/Postmaterialist values is its *inconsistency* over time." (Inglehart and Abramson 1994, 344). If one looks at the entire period, and one controls for both inflation and unemployment, then shifts toward Postmaterialism appear in all eight European societies examined, even Belgium, where the number of Postmaterialists barely changed. In sum, Inglehart and Abramson successfully defend their claim of a slow intergenerational shift.

Their defense of an economic mechanism for determining values is not so convincing. Inglehart and Abramson defend the scarcity/security hypothesis on two tacks. First, they say the values measure varies with inflation because inflation causes insecurity, causing materialism. While noting that the four question battery "includes one choice that makes the measure sensitive to changing rates of inflation, since one of the four proposed national goals is 'fight rising prices'" (Inglehart and Abramson, 341) they nonetheless assert that inflation causes actual value changes. Quoting an earlier work (Inglehart 1985, 103), they write:

"The scarcity hypothesis" Inglehart writes, "implies short term changes, or period effects: periods of prosperity lead to increased Postmaterialism.... The socialization hypothesis implies that long-term cohort effects *also* exist" (Inglehart and Abramson 1994, 337).

Elsewhere in the same 1994 article they assert that "(t)he finding that short-term change results largely from changes in inflation is clearly consistent with Inglehart's scarcity thesis" (Inglehart and Abramson 1994, 341). Since they acknowledge that the presence of a question specifically referring to inflation makes Inglehart's measure profoundly sensitive to current inflation, that same sensitivity to inflation does not

support economic determinism of values. Both the major impact of inflation and the possible slight impact of unemployment on the values measure occur at the time of the survey and not at time of maturation.

The second argument is one presented in Inglehart's other works, and discussed earlier: that there is a link between a country's prosperity and the level of Postmaterialist values. In this new article they examine a number of new countries and find the same kind of relationship Inglehart found before: that the wealthier countries and regions of countries appear to have higher levels of Postmaterialism. This is not convincing for the reasons already given by this writer and by Duch and Taylor.

To address the sorts of arguments and observations made by Weakliem; Pfeiffer and Côté; and Duch and Taylor about the role of education, Inglehart and Abramson say only:

These relationships are not just a function of the higher educational levels of younger Europeans, although the very low educational levels of older Europeans contributes to their levels of postmaterialism (Inglehart and Abramson 1994, 339).

They provide neither data nor arguments supporting this position. However, they do cite a forthcoming article, to be titled "Education, Security and Postmaterialism" (Abramson and Inglehart, N.d.). It will be interesting to see what it says.

Conclusion

Inglehart's numerous works contribute to the advancement of the scientific study of the political. He has been engaged in an ambitious effort to discern the salient cultural trends in advanced industrial democracies and to develop a rigorous, predictive, scientific theory to explain what change there is. His effort is hampered by his use of Maslow's ideas to found his theory. He backs away from Maslow on many occasions, and refers to him less in each successive work, but ultimately his entire theory of culture shift and the changing nature of partisan polarization as reflecting a Materialist versus Postmaterialist split, caused by increasing prosperity, is based upon Maslow's spurious theories. Everywhere Inglehart's theory runs into serious trouble, the trouble ultimately flows from the Maslowian ideas, and can be eliminated by excising those ideas. Inglehart's data, data presented here and the data of several critics of Inglehart suggest rather that education as a socializing factor is far more influential in determining the values he documents than anything connected to Maslowian need hierarchies. When Inglehart concedes that exposure to the university social milieu is a powerful cause of Postmaterialism, in order to cling to Maslow he chooses to regard it as a second, unrelated cause of the values in question, failing to apply Occam's razor and needlessly making his theory less parsimonious. Inglehart's incoherent categorization of the changing nature of western partisan polarization as Material versus Postmaterial also flows from trying to force the patterns in his data to fit Maslow's image of the world.

Because Maslow defines the values in question in relation to individual security, well being and even mental health, Inglehart, playing the same game, investigates values along similar lines. The values and characteristics Inglehart attributes to the Postmaterialist and cognitively mobilized are those of Maslow's self-

actualizing individuals. Inglehart's data shows a connection between these characteristics and the university environment. Maslow and Inglehart's themselves are in that milieu and have the values in question. The observed existence of such values combined with Maslow's praise might explain the appeal of Maslow's theory of the effects of "need satisfaction" despite its lack of a legitimate methodology. Unmediated economic determinism is also appealing because, if it were true, it would be easier to describe cultural trends, and their causes in clearly defined, mathematical terms than if the particular character of individual's social environment largely determines such cultural matters. GDP is easier to attach a meaningful number to than social milieu. The evidence, however, points to social factors such as the university environment, as the best predictor of the trends that Inglehart depicts. Rejecting his causal mechanism and modifying his categorization of culture shift to reflect this fact would produce a more parsimonious theory with a better fit to the data.

Appendix A

Table 6.

Values in the 1990 General Social Survey (GSS) crosstabulated with age:

V a l u e s	Age					Row Total
	0-25	25-39	40-54	54-69	70+	
Materialist	37	111	83	81	81	393 28.6
in-between	79	264	174	131	94	742 54.1
Postmaterialist	26	97	69	29	16	237 17.3
Column Total	142 10.3	472 34.4	326 23.8	241 17.6	191 13.9	1372 100.0
Chi-Square		Value		DF	Significance	
-----		-----		-----	-----	
Pearson		40.22207		8	.00000	
Statistic		Value		ASE1	Val/ASE0	Approximate Significance
-----		-----		-----	-----	-----
Phi		.17122				.00000
Cramer's V		.12107				.00000
Gamma		-.17469		.03341	-5.17170	

Table 7.

Values in the 1990 GSS, looking at the poles only, crosstabulated with liberal and conservative views on divorce. Liberal is defined for this variable as desiring either no change in divorce laws or change to make divorce easier. Conservative is defined as desiring more restrictions on divorce than the present laws:

		Divorce		
V a l u e s		Liberal	Cons	Row Total
		Materialist	116	149
Postmaterialist	73	57	130 32.9	
Column Total		189 47.8	206 52.2	395 100.0

Chi-Square	Value	DF	Significance	
Pearson	5.35694	1	.02064	
Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	-.11646			.02064
Cramer's V	.11646			.02064
Lambda :				
symmetric	.05016	.03466	1.40680	
with VALRC dependent	.00000	.00000		
with DIVLAWRC dependent	.08466	.05772	1.40680	
Gamma	-.24387	.10149	-2.32179	

Table 8.

Values in the 1990 GSS, looking at the poles only, crosstabulated with support for legal abortion for any reason:

		Abortion for any reason		
V a l u e s		YES	NO	Row Total
		Materialist	62	157
Postmaterialist	135	97	232 51.4	
Column Total		197 43.7	254 56.3	451 100.0

Chi-Square	Value	DF	Significance	
Pearson	40.88324	1	.00000	
Statistic	Value	ASE1	Val/ASE0	Significance
Phi	-.30108			.00000
Cramer's V	.30108			.00000
Lambda :				
symmetric	.23558	.05751	3.81839	
with VALUES dependent	.27397	.06201	3.82532	
with ABORTION dependent	.19289	.06946	2.51222	
Gamma	-.55794	.06906	-6.72150	

Table 9.

Values in the 1990 GSS, looking at the poles only, crosstabulated with views on homosexuality:

		HOMOSEXUALITY VIEWS				
		ALWAYS WRONG 1	ALMST AL WAYS WRG 2	SOMETIMES WRONG 3	NOT WRONG AT ALL 4	Row Total
V a l u e s	Materialist	205	6	7	8	226 50.0
	Postmaterialist	144	13	25	44	226 50.0
	Column Total	349 77.2	19 4.2	32 7.1	52 11.5	452 100.0
Chi-Square		Value		DF	Significance	
-----		-----		-----	-----	
Pearson		48.28892		3	.00000	
Statistic		Value		ASE1	Val/ASE0	Approximate Significance
-----		-----		-----	-----	-----
Phi		.32685				.00000
Cramer's V		.32685				.00000
Lambda :						
symmetric		.18541		.02486	6.26613	
with VALUES dependent		.26991		.03837	6.26613	
with HOMOSEX dependent		.00000		.00000		
Gamma		.67362		.06929	7.37900	

Table 10.

Crosstabulation of values in the 1990 GSS with level of education.

		Education					
		LT HIGH SCHOOL 0	HIGH SCHOOL 1	JUNIOR COLLEGE 2	BACHELOR 3	GRADUATE 4	Row Total
V a l u e s	Materialist	129	211	10	35	8	393 28.7
	in-between	140	396	46	106	51	739 54.1
	Postmaterialist	13	119	19	56	28	235 17.2
Column Total		282 20.6	726 53.1	75 5.5	197 14.4	87 6.4	1367 100.0
Chi-Square		Value		DF	Significance		
-----		-----		-----	-----		
Pearson		111.48212		8	.00000		
Statistic		Value		ASE1	Val/ASE0	Significance	
-----		-----		-----	-----	-----	
Phi		.28557				.00000	
Cramer's V		.20193				.00000	
Gamma		.39787		.03273	11.17865		

Table 11.

Values in the 1990 GSS crosstabulated with race, defined in terms of white and not white.

		Race		Row
V a l u e s		White	Not White	Total
	Materialist	332	61	393 28.6
	in-between	601	141	742 54.1
	Postmaterialist	217	20	237 17.3
Column Total	1150 83.8	222 16.2	1372 100.0	

Chi-Square	Value	DF	Significance
Pearson	14.95640	2	.00057

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.10441			.00057
Cramer's V	.10441			.00057
Gamma	-.10292	.05988	-1.70207	

Table 12.

Values in the 1990 GSS crosstabulated with race, defined in terms of white and not white, selecting only those who have education beyond high school.

		Race		Row
		White	Not White	Total
V a l u e s	Materialist	51	2	53 14.8
	in-between	174	29	203 56.5
	Postmaterialist	97	6	103 28.7
	Column Total	322 89.7	37 10.3	359 100.0

Chi-Square	Value	DF	Significance	
Pearson	8.16159	2	.01689	
Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.15078			.01689
Cramer's V	.15078			.01689
Gamma	-.08506	.13220	-.64387	

Appendix B: Regression Tables

Multiple Regression 1

The impact of education and religion on Inglehart's four-question battery:

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. V393 VALUE PRIORITIES
 Block Number 1. Method: Enter

Variable(s) Entered on Step Number 1. V367 - AGE FINISHED EDUC
 2.. RELIGION

Multiple R	.41621	Analysis of Variance			
R Square	.17323		DF	Sum of Squares	Mean Square
Adjusted R Square	.17142	Regression	2	70.98246	35.49123
Standard Error	.60981	Residual	911	338.76809	.37186
F = 95.44143		Signif F = .0000			

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
EDUCATION	.232450	.018714	.375368	12.421	.0000
RELIGION	.283696	.056181	.152600	5.050	.0000
(Constant)	1.026512	.073388		13.988	.0000

Multiple Regression 2

The impact of age, religion and education upon Inglehart's four-question battery:

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. V393 VALUE PRIORITIES

Block Number 1. Method: Enter

Variable(s) Entered on Step Number 1.. V373 AGE
 2.. RELIG
 3.. V367 AGE FINISHED EDUC RECODE

Multiple R	.37351	Analysis of Variance			
R Square	.13951		DF	Sum of Squares	Mean Square
Adjusted R Square	.13927	Regression	3	662.37175	220.79058
Standard Error	.61707	Residual	10729	4085.37389	.38078
F = 579.83975		Signif F = .0000			

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
AGE	-.003831	3.7719E-04	-.102832	-10.156	.0000
RELIGION	.285405	.012287	.209304	23.228	.0000
EDUCATION	.155036	.006996	.225472	22.161	.0000
(Constant)	1.332961	.030191		44.151	.0000

Multiple Regression 3

Regression of values with education for Spanish Eurobarometer 1987 respondents age 15-34, excluding the mixed values category.

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. V393 VALUE PRIORITIES

Block Number 1. Method: Enter

Variable(s) Entered on Step Number 1.. V367 AGE FINISHED EDUC RECODE

Multiple R	.49168	Analysis of Variance			
R Square	.24175		DF	Sum of Squares	Mean Square
Adjusted R Square	.23704	Regression	1	39.07091	39.07091
Standard Error	.87245	Residual	161	122.54872	.76117
		F =	51.32993	Signif F =	.0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
V367(Education)	.411193	.057393	.491677	7.164	.0000
(Constant)	1.105666	.153700		7.194	.0000

Multiple Regression 4

Regression of values with education for Spanish Eurobarometer 1987 respondents age 35+, excluding the mixed values category:

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. V393 VALUE PRIORITIES

Block Number 1. Method: Enter

Variable(s) Entered on Step Number 1.. V367 AGE FINISHED EDUC RECODE

Multiple R	.34045	Analysis of Variance			
R Square	.11590		DF	Sum of Squares	Mean Square
Adjusted R Square	.11294	Regression	1	14.33333	14.33333
Standard Error	.60571	Residual	298	109.33333	.36689
		F =	39.06707	Signif F =	.0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
V367(Education)	.333333	.053330	.340445	6.250	.0000
(Constant)	.800000	.077650		10.303	.0000

Multiple Regression 5

The impact of both race and education beyond high school on the values measure constructed to approximate Inglehart's measure in the 1990 GSS data.

Listwise Deletion of Missing Data

Equation Number 1 Dependent Variable.. VALRC (=values)

Block Number 1. Method: Enter

Variable(s) Entered on Step Number

1.. EDHILO (=education, whether beyond high school or not)

2.. RACERC (=white and not white)

Multiple R .22897
 R Square .05243
 Adjusted R Square .05104
 Standard Error .65083

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	31.96807	15.98403
Residual	1364	577.77005	.42359

F = 37.73512 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
EDHILO	.342140	.040187	.225437	8.514	.0000
RACERC	-.043307	.047950	-.023916	-.903	.3666
(Constant)	1.502766	.080834		18.591	.0000

Multiple Regression 6

The impact of race on the values measure constructed to approximate Inglehart's measure in the 1990 GSS data, selecting only respondents who have education beyond high school:

Number of Missing Observations: 0
 Listwise Deletion of Missing Data
 Equation Number 1 Dependent Variable.. VALRC
 Block Number 1. Method: Enter
 Variable(s) Entered on Step Number

1.. RACERC(=Race, whether white or not)

Multiple R .01640
 R Square .00027
 Adjusted R Square -.00253
 Standard Error .64603

Analysis of Variance			
	DF	Sum of Squares	Mean Square
Regression	1	.04007	.04007
Residual	357	148.99614	.41736

F = .09602 Signif F = .7568

----- Variables in the Equation -----					
Variable	B	SE B	Beta	T	Sig T
RACERC	-.034749	.112143	-.016398	-.310	.7568
(Constant)	2.177606	.128314		16.971	.0000

Appendix C

The Alternative to Inglehart's battery, used in this paper with the 1990 General Social Survey data.

The SPSS code used to produce a values measure in the 1990 GSS data which should capture nearly the same groups as Inglehart's measure:

```

15 if (jobsec lt 3) m = m+1
16 if (jobsec ge 3) pm = pm+1
17 if (jobinc lt 3) m = m+1
18 if (jobinc ge 3) pm = pm+1
19 if (jobmeans lt 3) pm = pm+1
20 if (jobmeans ge 3) m = m+1
21 if (spkath =1) pm=pm+1
22 if (spkath =2) m=m+1
23 if (spkmil =1) pm=pm+1
24 if (spkmil =2) m=m+1
25 if (spkcom =1) pm=pm+1
26 if (spkcom =2) m=m+1
27 if (courts =1) pm=pm+1
28 if (courts =2) m=m+1
29 if (wirtap =1) m=m+1
30 if (wirtap =2) pm=pm+1
31 if (naterime =1) m=m+1
32 if (naterime ne 1) pm=pm+1
33 if (natarms =3) pm=pm+1
34 if (natarms =1) m=m+1
35 compute val = pm-m
36 if (val lt 0) valrc = 1
37 if (val gt 4) valrc = 3
38 if ((val ge 0) and (val le 4)) valrc = 2

```

Valrc is the values variable. Each of the component items were chosen because they address the same types of priorities Inglehart uses in his battery. Scores consistent with Inglehart's hypotheses concerning Postmaterialists increase the 'pm' count, and conversely, scores consistent with a more Materialist view increase the 'm' count. The variable 'val' is the score of 'pm' minus that of 'm', and gives each respondent a place on a scale from very Materialist to very Postmaterialist. Valrc reduces the scale to three categories arbitrarily chosen to reflect relatively polar position that capture similar proportions of the population as Inglehart's measure.

The variables 'Jobsec', 'Jobinc' and 'Jobmeans' are questions about how important job security, income and having one's job mean something are to the respondent, ideas which Inglehart relates to the differences between Materialists and Postmaterialists. The variables 'Spkath', 'Spkmil' and 'Spkcom' are whether the respondent feels atheists, militarists and communists should be allowed to publicly voice their opinions, capturing Inglehart's notion that Postmaterialists are more likely to emphasize freedom of expression than Materialists. Variables 'Courts' and 'Wirtap' question whether the respondent feels courts are too harsh or too lenient, and whether police capturing the notion that Materialists emphasize societal order. The variable 'Natarms' asks whether we spend enough on defense, tapping the notion that Materialists are more concerned with national security.

Selected Bibliography

- Abramson, Paul R., and Ronald Inglehart. "Economic Security and Value Change." American Political Science Review 88 (1994): 336-354.
- Abramson, Paul R., and Ronald Inglehart. Nd. "Education, Security, and Postmaterialism." American Journal of Political Science. Forthcoming.
- Bahls, Steven. "Political Correctness and the American Law School." Washington University Law Quarterly 69 (1991): 1041-1058.
- Bernstein, Basil. "A Public Language." British Journal of Sociology 10, no. 4 (1959): 311-325.
- Clark, Harold and Dutt, Nitish. "The Political Economy of Attitudes toward Polity and Society in Western European Democracies." The Journal of Politics 55, no. 4 (November 1993): 998-1021.
- Dalton, R. J. "Was there a revolution? A note on generational versus life cycle explanations of value differences." Comparative Political Studies 9 (1977): 459-473, cited in Martin Pfeiffer and James Côté. "Inglehart's Silent Revolution Thesis: An examination of Life-Cycle Effects in the Acquisition of Postmaterialist Values." Social Behavior and Personality 19, no. 4 (1991): 223-235.
- Duch, Raymond and Michael Taylor. "Postmaterialism and the Economic Condition." American Journal of Political Science 37, no. 3 (August 1993): 747-779.
- Freeman, Jo. "Feminism versus Family Values." PS 26, no. 1 (March 1993): 22-29.
- Flanagan, Scott. "Changing Values in Advanced Industrial Societies: Inglehart's Silent Revolution from the Perspective of Japanese Findings." Comparative Political Studies 14, no. 4 (1982): 403-443.
- Hume, David. An Inquiry Concerning Human Understanding. Indianapolis: Bobbs Merrill Educational Publishing, 1955 (1748).
- Inglehart, Ronald. "The silent revolution in Europe: intergenerational change in post-industrial societies." American Political Science Review 65 (1971): 991-1017, cited in Martin Pfeiffer and James Côté. "Inglehart's Silent Revolution Thesis: An Examination of Life-Cycle Effects in the Acquisition of Postmaterialist Values." Social Behavior and Personality 19, no. 4 (1991): 223-235.
- _____. The Silent Revolution: Changing Values and Political Styles Among Western Publics. Princeton, N.J.: Princeton University Press, 1977.
- _____. "Changing Values in Japan and the West." Comparative Political Studies 14, no. 4 (1982): 445-479.

- _____. "Aggregate Stability and Individual-level Flux in Mass Belief Systems: The Level of Analysis Paradox." American Political Science Review 75. (1985):97-116. Quoted in Paul Abramson and Ronald Inglehart. "Economic Security and Value Change." American Political Science Review 88. (1994): 336-354.
- _____. Culture Shift in Advanced Industrial Democracies. Princeton, N.J.: Princeton University Press, 1990.
- Inkeles, Alex. Review of Culture Shift in Advanced Industrial Societies, by Ronald Inglehart. In Public Opinion Quarterly 55, no. 2 (Summer 1991): 303-307.
- Lafferty, W.M. "Basic needs and political values: Some perspectives from Norway on Europe's 'silent revolution'." Acta Sociologica 19. (1976): 117-136, cited in Martin Pfeiffer and James Côté. "Inglehart's Silent Revolution Thesis: An Examination of Life-Cycle Effects in the Acquisition of Postmaterialist Values." Social Behavior and Personality 19, no. 4 (1991): 223-235.
- Maslow, Abraham. Toward a Psychology of Being. 2d ed. Princeton, N.J.: Van Nostrand 1968.
- Maslow, Abraham. Motivation and Personality. 2d ed. New York: Harper and Row, 1970.
- OECD. OECD Economic Outlook: Historical Statistics, 1960-1985. Paris: OECD, 1987.
- Pfeiffer, Martin and James Côté. "Inglehart's Silent Revolution Thesis: An Examination of Life-Cycle Effects in the Acquisition of Postmaterialist Values." Social Behavior and Personality 19, no. 4 (1991): 223-235.
- Sapir, Edward. Collected Works. Edited by Phillip Sapir. New York: M. de Gruyter, 1990.
- U.S. Bureau of the Census. Statistical Abstract of the United States, 1989. Washington, D.C.: U.S. Bureau of the Census, 1989.
- Whorf, Benjamin. Language, Thought and Reality: Selected Writings. Cambridge, Mass: MIT Press, 1956.
- Weakliem, David. "The Two Lefts? Occupation and Party Choice in France, Italy, and the Netherlands" American Journal of Sociology 96, no. 6 (May 1991): 1327-1356.
- Wildavsky, Aaron. "Are American Political Parties Pretty Much the Same as They Used to Be in the 1950s, Only a Little Different, or Are They Radically Different? A Review Essay." Journal of Policy History 4, no. 2 (1992): 229-245.
- Wittgenstein, Ludwig. Philosophical Investigations. Oxford: Basil Blackwell, 1967.

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