Ideological impacts upon environmental problem perception

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Abstract

Problem perception is the first stage of the policy process, and it is one often influenced by political ideology. Government will not act upon a problem until the public perceives its existence and makes it a salient matter. Senior political scientist Ronald Inglehart suggested that environmental policy issues are primarily the purview of those who adhere to what he calls "postmaterialist" ideology, a finding confirmed by subsequent scholarship.

In this paper, we suggest that postmaterialism makes a limited impact upon perception of environmental problems, particularly when controlled by other factors, including the geographical distribution of the perceived problem. Using Inglehart's World Values Survey, we find that postmaterialist values impact perception of global environmental issues, but that no ideology dominates perception of local issues.

Introduction

Popular political culture in industrialised nations often portrays the environmentalist movement as being on the outer fringes of the left wing, and this perception has a reasonable basis behind it. Green parties entering government practically always do so as a junior partner to a party generally located on the left wing, and does go without saying that those parties do indeed fall on the left side of the traditional left-right political spectrum. That said, the same culture that places environmentalists on the left wing also makes it politically incorrect to be directly anti-environmentalist in one's political views.

With this paper, we offer a different perspective: that environmental issues are not exclusively the province of the political left. The focus of this paper is not support for environmentalist political parties. Rather, it examines the impact that political ideology makes upon a point that is more basic, which is whether a person believes that an environmental problem even exists. We contend in this paper that environmental problem perception cuts across multiple ideologies, and we further contend that perception of environmental problems cuts across ideologies and depends upon the type of problem at hand.

Perception of a Problem

Political scientist Harold Laswell postulated long-famous seven-step outline of the policy process, the first step of which deals with perception of the problem. This, in and of itself, is a step that can include controversy In that there can be disagreement over whether a problem exists at all, and if it does, as to what form it takes. As he noted in many of his writings—including a book bearing the name—politics is about who gets what, when, and how (Lasswell, 1950). He defined "elites" as those who are able to get the most from the available resources. However, whom the rulers happen to be depends upon the base value of the political system (Lasswell and Kaplan, 1950). Even in the system that purports to be a democracy, the actual rulers might not be the electorate, or the electorate might not consist of the masses. This having been said, a government operating within a democratic constitution generally will not act upon a political issue until and unless that issue is salient among political elites. At some point, those political elites will consist of those who cast ballots in general elections, and we can narrow this electorate further to those who have sway in nomination contests, such as the process of selecting party candidates to stand in parliamentary constituencies.

Generally, matters do not enter the public agenda until they are placed there through linking institutions, mainly understood to be political parties, interest groups, and the media. In order for these institutions to become aware that such a problem does, in fact, exist, individuals or groups must raise the matter. In the instance of a political party taking up such an issue, a member would need to bring a resolution either before the plenary or the executive and secure its adoption. We can assume at this stage that a similar process would exist for interest groups. For the media, this would take the form of a potential news story being brought to the attention of journalists responsible for covering the issue's beat area, either through a member of the public contacting the press organization or through a member of that organization conducting research on his or her own.

Prioritising Needs

Abraham Maslow's Hierarchy of Needs places the most basic needs for human survival at the bottom, needs that clearly would cause the highest levels of frustration—if not desperation—if they not met satisfactorily. These needs are material in nature, such as food, clothing, and shelter. As one moves up the hierarchy, one finds matters that are more abstract, relating to self-actualization. Failure to satisfy these needs will not produce the same levels of frustration, and as Maslow himself noted, their nature is more selfless than the more basic needs found at the bottom of the hierarchy (1970).

Maslow contended that an individual's level of frustration would depend upon whether that individual's basic needs were being met. Those needs connected with the health and well-being of the individual are more likely to produce frustration when they are not met than needs that do not have such a connection. Those needs that fall within the latter category, "higher

needs," as it were, relate to happiness and fulfilment of the human condition. Because they are not needed for day-to-day survival, these needs do not have the same sense of urgency as those that do have such a need (Maslow, 1970). Human beings pursue that which they values as a "need" through institutions on resources (Lasswell, 1948).

To reiterate, Lasswell wrote of politics as a matter of "who gets what, when, and how," with the elites receiving the bulk of the benefits of any policy decision and the masses receiving whatever remains. Compared with public goods or even metaphysics, we find it relatively easy to explain the politics behind private, material good distribution, such as a policy decision on whether to make taxpayer-funded subsidies available to farmers to aid them in growing crops needed to feed the population. As this also deals with a material need that falls toward the bottom of Maslow's hierarchy, this is a matter that can draw considerably passionate debate, particularly if a polity finds itself facing or potentially facing a food shortage (Maslow, 1970).

Environmental politics—at least at present—seldom draw the type of attention that one would expect in a matter of basic material distribution. To be sure, there are no resources available to man that are infinite in nature, placing any political issue into a zero-sum scenario. This said, the food distribution example above clearly falls into the materialist arena, but so might a matter involving medicine distribution. The debate over either could intensify if public resources become scarce enough to the point where public leaders must decide whether to sacrifice the ability to purchase one in order to be able to afford the other. As Maslow pointed in his work, this would lead to a "threatening conflict" situation, where either choice available will likely produce damage; the decision to support one option means sacrificing the opportunity to support the second, and it is not possible to support both at levels that would satisfy perceived needs, particularly those falling in the lower rungs of the hierarchy.

Materialist and Post-Materialist Ideology

People commonly depict political ideology along a one-dimensional line, the so-called liberal-conservative, or "left-right," self-placement scale. While this line simplifies politics and makes them easier to depict, it also ignores the fact that there exist a plethora of political ideologies in any given polity. Systems of proportional representation now in place in most European democracies allow a greater number of parties to emerge and gain official representation than was possible under the Westminster-style first-past-the-post system that proportional representation replaced.

Seymour Martin Lipset suggested in his classic *The Political Man* that we were facing "an end to ideology" as we knew it, with a growth of "new lefts" throughout Western European democracies, including socialism (1981). Ronald Inglehart would pick up this research over the course of a forty-year career in which he would postulate the existence of a "new left" ideology emerging among the post-war youth in Europe. He placed material interests along the aforementioned traditional left-right continuum, and then suggested the existence of an ideology

focusing more on metaphysics that would branch away from this traditional line. Adherents to this "post-materialist" ideology would place a greater emphasis on matters of quality-of-life, such as expanding the opportunity for all to have a voice in society or concern for the environment. It is this latter topic area that will serve as the focus of this paper from here forward.

Inglehart noted that post-materialism would be most likely to take hold in areas that had experienced extended periods of relative peace and prosperity, particularly in regions with generational cohorts that had never experienced periods of political or economic tumult. Obviously, this group excludes those who fall in lower economic strata, but it also excludes the very wealthy, who also concern themselves with material gain and maintenance of those gains. Hence, it was his expectation to see a younger cohort that would be most likely to adopt this ideology, and this ideology would slowly grow as the older materialist generations gave way to the younger post-materialist brand of thought. He did concede, however, that increasing levels of unemployment or higher inflation could cause a shift back toward materialist values, even among generational courts with high percentages of post-materialist values (Inglehart, 1987, 1997; Inglehart and Abramson, 1994, 1999).

Ideology and Environmental Policy Support

It is understandable why Inglehart classified environmental policy as falling within his post-materialist ideological dimension. To a great extent, it is a public good. Any piece relating to environmental protection will benefit everybody within the scope of the geographic area affected regardless as to who within that area works to achieve the goals stipulated in the policy or to even get it enacted in the first place. He is not the first scholar to suggest that environmental policy touches upon multiple ideologies.

Steger, Pierce, Steel, and Lovrich noted that there is a multidimensional ideological aspect to support for environmental policy, with post-materialist values providing the bulk of that support. Their research project, concentrating in Ontario and Michigan, demonstrated that post-materialist values and environmental policy support were greater in areas where the structure of the government allowed for them to exist and flourish. The Canadian political system is more difficult to access than the American system, which features multiple points where activists can access political institutions, resulting in a Canadian polity that is more "group-oriented" than the more fractured American system. Consequently, it is their expectation that post-materialist values are more likely to emerge and be relevant in a society that has a stronger sense of collectivism. That sense results from the fact that it takes a stronger concentration of effort to access the political institutions of government there (1989).

This becomes particularly relevant here because of the fact that the vast majority of Western European political systems are based upon the same constitutional principles found in the Canadian system, namely that of a parliamentary system in which the executive is

accountable to the legislature. Once public policy is introduced in parliament, it is extremely difficult to affect change to that policy proposal. Coupling this with the fact that Inglehart expected post-materialist values would be strongest in Western Europe, we can expect to find a strong level of post-materialism present compared to other democracies, and that should bring a strong level of support for environmentalist policies. However, post-materialism is not the only concern we have. We must also deal with the materialist ideologies that are still present in Europe and still relevant.

Dunlap and Alan conducted a study in the mid-1970s looking at what they expected to emerge within the Democratic and Republican parties in terms of position on environmental issues. Their expectation was that the Democratic Party would become more pro-environmental while Republican Party would resist such policies due to its stronger and historical pro-business position. To be sure, businesses and industry have traditionally resisted policies aimed at environmental clean-up. Their expectations have, in fact, come to fruition. Just a half-decade later, Republican Ronald Reagan entered office and almost immediately put in place an anti-environmental regulation enforcement regime. Two decades later, Republican President George W. Bush refused to sign off on any environmental regulation proposals if he felt such regulations would cost jobs (Dunlap and Allen, 1976). Nevertheless, public opposition to a significant portion of the Reagan administration's environmental policies rose during his term in office. This increase in opposition was attributed to decreasing public confidence in business and industry to do their part to protect the environment (Dunlap and Scarce, 1991). If anything, the debate on whether economics or the environment should prevail in terms of public policy stems from the ethical debate described by political theorist Bob Taylor as being a matter of biocentrism versus anthropocentrism (1991).

The Post-Materialistic and Materialist Nature of Environmental Problems

As mentioned previously, the policy-making process begins with problem perception, the earliest stage at which the basic ontological question—in this case whether an environmental problem exists—is answered by some in the affirmative. Those who perceive that it does will then define the parameters of the issue. Upon receiving sufficient support, one or more linking institutions will then attempt to get the item onto the public agenda, opening the matter for general debate in the populace as well as institutions of governance and government. Once the issue does reach those institutions that have the authority to set public policy, debate then ensues as to how best to resolve the problem. If that authority can reach a decision, it enacts it.

At every one of these steps, differences of opinion can and do arise, and that represents a considerable portion of the point that we intend to make here with respect to environmental policy. To be sure, some are convinced that global warming is a real and present threat to our very existence. They will cite multiple scientific studies pointing to the fact that Earth is warming, and Man's industrial activities of the past one-and-one-half centuries significantly

contributes to that warming. Others dispute this—some vehemently—with arguments that there is no "smoking gun" that definitely ties industrial production to increasing global temperatures. They note that the planet's geological record indicates periods of cooling and warming over the ages, and they suggest that any rises in temperature are merely the result of Earth still emerging from the most recent Ice Age.

Global warming and climate change are issues that clearly cross political boundaries drawn by human beings. Addressing them requires a sense of community and coordination among many polities and governments. On the other hand, pollution of someone's local water supply is another matter, one that is localized in nature. To be sure, both of these are environmental matters. Both of these deal with community-level matters, "community" not being a term synonymous with "local" for purposes of this paper. However, significant differences between these emerge, and we can reach back to Maslow's Hierarchy of Needs to examine them.

Policy addressing global climate issues necessitates changes in technology, research, and lifestyles. It also necessitates changes in contemporary economics to one degree or another. Some of these changes can hit close to home, particularly if one is employed in an industry that will have to make major changes in the light of mandates imposed by such policy. Other changes, such as an alteration of the climate, would not be so felt in a personally measureable sense. If climate change policies succeed to any extent, the community—the world, in this instance—would eventually be able to note those changes, but it would come through long-term empirical measurement.

Any immediate gratification felt by enacting policy related to global climate change would come from the labour put into enacting it more so than seeing actual changes caused by the policy—if any—to the climate. On the other hand, if industrial pollution impacts a water supply used by a municipality for drinking, bathing, washing, cooking, et cetera, such a problem will have its community-level effects, but they will also have personal effects as well, such as the inability to meet with those basic human needs for comfort if not outright survival. Put succinctly, the global policy does not produce tangible changes in lifestyle for most people that the local water supply clean-up would cause. The former produces gratification from a stronger metaphysical position, while the latter has a materialist basis.

In light of the forgoing, we expect to show that localized environmental problems will draw recognition mainly along the materialist ideological axis and without significant regard to the left or right wings, while globalized matters draw recognition mainly along the post-materialist axis. However, when it comes to finding solutions to any of these problems, the strongest support for one enacted by government will come from the post-materialist axis, while the strongest opposition will come from the conservative wing of the materialist axis. Hence, the conservative materialist wing will readily perceive problems, just as the materialist left will, but the right will take a very different point of view as to the role of government and policy priorities when it comes to how to rectify those matters.

Data, Methods, and Analysis

Due to Inglehart's expectation that post-materialism would have its strongest impact in Europe—particularly Western Europe—we concentrated my analysis on those countries that are members of the European Union. We drew my data for this analysis from the 2005-2007 wave of the World Values Survey [WVS], which is the data from which Inglehart conducts his own research into post-materialist ideology.

Before moving further with the analysis, we must point to some of the criticisms of Inglehart raised since he first put forth his theory. Duch and Taylor took the perspective that post-materialism was more temporal and, thus, subject to the state of the moment than Inglehart postulated it as being. Their assertion held that a person who experienced hard times would shift toward placing a greater emphasis on materialist matters (Duch and Taylor 1993, 1994). Inglehart himself suggested that such a possibility existed in his later writings.

Flanagan offered an alternative theory that positioned post-materialism as a complete axis consisting of libertarian and authoritarian branches as opposed to Inglehart's "New Left" ray branching from the traditional liberal-conservative materialist ideological dimension. The resulting "New Right" that Flanagan and others suggest exists would presumably include those who do not support pro-environmental policy (Inglehart 1987; Flanagan, 1987; Flanagan and Lee 2003). This said, the data we present later in this article show that there are few who will admit that they do not support a cleaner environment, but there is a significant level of distrust—if not outright opposition—in the role that government might play in cleaning the environment.

The WVS includes a series questions regarding perception of six particular environmental issues, three of which occur at a local level—water quality, air quality, and sewage system—and three of which occur at a global level—global warming, loss of plant/animal life, and pollution of rivers and lakes. Each of these questions asked respondents to rate each issue on a four-point scale from "very serious" to "not serious at all." The Inglehart materialism/post-materialism measure is a three-point scale, combining a series of questions asking respondents to rate which issues are most important to them. The scale runs "materialist," "mixed materialist/post-materialist," and "post-materialist." The traditional liberal/conservative measure is a ten-point self-placement score that we collapsed into a three-point scale that would parallel the Inglehart variable. The general variables on attitudes toward the environment include a question asking respondents on their attitudes toward a statement that it is important to them that they look after the environment with a six-point scale ranging from "very much like me" to "not at all like me." Two additional questions on who should pay for environmental clean-up efforts ask respondents if they would be willing to give up some of their income toward those efforts or whether the government should oversee such an effort but without the respondents' own taxes going toward it. we also used measures for gender, education level, and income.

We began with cross-tabular analysis of the WVS variables to examine how the traditional and Inglehart ideological axes relate to perception of the six environmental issues.

Initial results make clear that there a very large majority of respondents said that they were at least somewhat concerned about the economy and favoured efforts to protect and/or to clean it. We present the results of ideology and general attitudes toward environmental protection in Tables 1A and 1B, covering traditional liberal/conservative ideology and the Inglehart materialist/post-materialist scale, respectively. We present the results of the cross-tabulations on ideology and perception of environmental issues in Tables 2A-2F for local issues and in Tables 3A-3F for global issues. As we suggested at the outset of this paper, the results from the WVS data show a weak connection between ideology and perception of environmental problems. Yet, the results also provide some patterns worthy of discussion and further treatment with inferential statistical methods; we will address the latter point further in this and the succeeding section.

The WVS asked respondents to rate their reaction to a statement that it is personally important to look after the environment. Nearly 81 percent of EU citizens queried responded that this statement was at least "somewhat like me" in terms of their own views. The number of those on the political right who so responded was slightly below the overall total, falling just above 79 percent. The left wing fell just above the group tally at 83 percent. With less that four percentage points separating the two sides—and the centre ground predictably falling between them—it is difficult to state that there is any major difference in points of view between them on this question, a point reinforced by the very low Spearman's rho scores of 0.0401 and 0.0366, respectively.

The Spearman's rho scores on the traditional scale for the local environmental problem perception variables ranged from -0.003 to -0.067, and the diagnostics confirmed independence of those variables in two of three models. On the other hand, the rho scores for the Inglehart variables ranged from -0.07 to -0.16. These scores are still low, but noticeably stronger than those for the traditional ideological scale cross-tabulations. Furthermore, the diagnostic scores confirm the existence of a relationship between the Inglehart ideological measurement and perception of local problem. The global problem perception cross-tabulations present a picture somewhat different in nature. The Spearman's rho scores for the traditional ideological scale models ranged from .039 to 0.080, with the diagnostic scores confirming the existence of a relationship. The Inglehart ideological scores were lower, ranging from 0.023 to 0.042. Again, the diagnostics confirm the existence of a relationship between these variables.

These descriptive results make clear that environmental impact individuals as well as societies, particularly when those issues hit closer to home. The local issue results thus far indicate that traditional ideology makes no notable difference on whether one will perceive the existence of the problem. Of greater note is the fact that the Inglehart scores show that those with a *materialist* ideology—not post-materialist—are more likely to perceive the existence of the problem. Looking at the local water quality measure, more than half of materialists rated the problem as either very serious or somewhat serious. An overwhelming majority of post-materialists—over 70 percent—rated the matter as not very serious or not serious at all. The other two local issue models produced similar results.

This should come as little surprise, however, given the theory regarding who post-materialists are. We should expect those who live in middle- to upper middle-class social strata to be far less likely to experience situations that would produce poor environmental conditions on a regular basis than someone who lives in a lower economic stratum. Those in the lower strata would be more likely to have materialist ideologies under Inglehart's theory, while those in the middle- to upper middle-classes would be more prone to adopting post-materialist values. Hence, where someone falls on the materialist axis does not generally impact one's perception of local environmental difficulties, but where someone falls on the Inglehart axis does matter.

Global issues present a picture more in line with widely held beliefs regarding the environmental movement as one of the political left. The data show that those on the traditional left are more likely to regard a global problem as serious, and the same goes for those who fall on the post-materialist side of the Inglehart axis. Global warming draws especially high numbers of respondents who feel that it is at least a somewhat serious matter, ranging from 91 to 93 percent on both the traditional and Inglehart axes. Some differences appear between the ideologies on the loss of species and water pollution variables, although those differences are not large. Nevertheless, the consistent finding on these models is that a greater number of those on the traditional left and the Inglehart post-materialist branch view more seriously these problems than do those who are centrists or on the traditional right or who have at least some materialist views of the world.

The next step is to measure the impact of ideology on environmental problem perception through circumstances that take into account additional control and demographic variables. Given the high levels of correlation between the six environmental problem perception variables, we conducted a factor analysis on them that—predictably—produced two factors centred respectively about the local and global variables. We conducted a Varimax rotation of the factor loadings and then extrapolated the regressors in order to conduct an ordinary least-squares regression analysis of the scores. Table 4 presents the results of the factor analysis, and Table 5 presents the results of the regression analysis. The environmental problem perception models regress both ideological variables, the environment importance variable, and demographic controls for gender, age, education, and subjective social class on the dependent variables. We also included dummy variables controlling for the countries included in the data.[1]

The local problem perception model has a strong explanatory value, with an adjusted R^2 score of 0.34. Neither of the ideological variables was anywhere close to being statistically significant, which should come as little surprise when considering the cross-tabulation results. The only two variables that were significant were the environment importance variable—significant at the $p > 0.01$ level—and the gender variable—significant at the $p > 0.10$ level.[2] The

[1] The "areg" command in STATA 10™, used to estimate these models, allows a nominal categorical variable to be "absorbed" and regressed as a series of dummy variables while producing the most advantageous exclusion of one of the categories in order to avoid multi-colinearity.

[2] The absorbed countries control variable was significant at the $p > 0.001$ level.

environment importance variable was signed in the expected direction; as concern for the environment increases, so did the seriousness with which they would regard local environmental issues. The gender variable showed that women were more likely than men to view such problems seriously.

The global issues model did not have as strong an adjusted R^2 score, falling at 0.1103, but all but one of the variables—including both ideological variables—were statistically significant. The only one that was not was the subjective social status variable. Both ideological scale variables were significant at the $p > 0.01$ level, with the signs indicating that traditional liberals and post-materialists are more likely to view as serious global environmental issues. The environment importance variable was signed in the expected direction, as it was with the local problems model. Younger respondents and those with higher levels of education were more likely to view global problems as serious.

The global problem perception models play directly into the left-wing stereotype with which many peg environmentalism, and not just on the ideological variables. Statistically, it might seem counterintuitive to some that the traditional ideological scale variable is significant at all when the Inglehart scale is significant and signed in favour of post-materialists viewing global environmental issues seriously. It bears mentioning again that Inglehart himself wrote that materialist and post-materialism ideologies are not necessarily an either/or dialectic. Most European democracies have multi-party political systems, yet we frequently portray all politics as occurring somewhere on a single-axis left-to-right scale as if two-party systems still dominated. None of the states included in this study are two-party polities. A Spearman's rho test of the two ideological variables used in this study produced a score of 0.047, which is quite low but still significant enough to indicate that a relationship exists between them. Additionally, the gender, age, and education variables all fell in the usual directions associated with the environmentalist movement. In that respect, this paper adds fuel to existing perceptions of this movement.

On the other hand, the local issue model breaks the stereotypes, and its results support the hypothesis we posited at the outset, that perception of local issues cuts across ideologies and depends upon the type of issue at hand. The lack of statistical significance on both ideological variables in the local model provides strong support for this position, further reinforced by the lack of significance on other demographic variables in the same model that were significant in the global issues model. The insignificance on the demographics is equally important as it is for the ideological variables in the sense that those demographics make direct impacts upon ideological positions, an assertion well-established in the extant literature. Even though it was highly insignificant, we still feel constrained to point to the fact that the Inglehart scale variable's sign pointed toward the materialist side. That would have been sensible to some extent, given the localised nature of the environmental problems included in the model. That said, when a local problem strikes, it matters not what one's ideology is. The problem affects everyone without ideological discrimination.

Beyond the ideological dimensions, we must also consider the issue of salience of environmental issues and the willingness of politicians to address them. The mere fact that local issues cut across ideological lines and that the main force driving perception of local environmental issues is simply a caring about them means that politicians run a higher risk by ignoring them when they become important. Conversely, the fact that a far smaller collection of demographics perceive global issues decreases the risk taken by politicians who only pay lip service to those issues or choose to ignore them completely. To be sure, the global issues model featured a much higher number of significant variables, but these variables also held less than one third of the explanatory value, as stated before. In other words, it takes a higher sum of factors to come together to find someone who would be more likely to perceive global issues as existing, coupled with the fact that this model held less than one third of explanatory value as the local issues model did. This, in and of itself, provides additional support to existing research examining why environmental issues have such great difficulty entering the public agenda. We depict in Figure 1 the overall results of these findings and their relationships.

To be sure, these models are simplistic in their approaches to this question, and there remains a weighty amount of variance in them in want of explanation. We raise doubt that adding variables significantly increasing the explanatory value will cause the ideological variables to increase in their own importance. Indeed, it is entirely possible that they could completely wash out of the global issues model as well in terms of importance in favour of other factors not considered here. Further work should look into discovering those variables and factors that do influence the perception process. It should also consider ideological impacts on other portions of the policy-making process with respect to environmental policy.

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APPENDIX

Table 1A: Traditional Ideology and Environmental Attitudes
Column percentages in italics

	Left	Centre	Right	TOTALS
Very much like me	495 *22.68*	1248 *18.97*	299 *18.97*	2042 *19.75*
Like me	762 *34.91*	2286 *34.74*	546 *34.74*	3594 *34.76*
Somewhat like me	563 *25.79*	1749 *26.58*	400 *25.38*	2712 *26.23*
A little like me	274 *12.55*	928 *14.10*	213 *13.52*	1415 *13.69*
Not like me	67 *3.07*	302 *4.59*	102 *6.47*	471 *4.56*
Not at all like me	22 *1.01*	67 *1.02*	16 *1.02*	105 *1.02*
TOTALS	2183 *100.00*	6580 *100.00*	1576 *100.00*	10,339 *100.00*

$Chi^2 = 39.1447$, $p > 0.001$
Spearman's rho = 0.0401

Table 1B: Materialist/Post-materialist Ideology and Environmental Attitudes
Column percentages in italics

	Post-Materialist	Mixed	Materialist	TOTALS
Very much like me	374 *21.27*	1467 *20.33*	584 *17.14*	2425 *19.58*
Like me	622 *35.38*	2455 *34.02*	1169 *34.31*	4246 *34.29*
Somewhat like me	437 *24.86*	1908 *26.44*	987 *28.97*	3332 *26.91*
A little like me	234 *13.31*	989 *13.70*	454 *13.33*	1677 *13.54*
Not like me	75 *4.27*	325 *4.50*	154 *4.52*	5554 *4.47*
Not at all like me	16 *0.91*	73 *1.01*	59 *1.73*	148 *1.20*
TOTALS	1758 *100.00*	7217 *100.00*	3407 *100.00*	12,382 *100.00*

$Chi^2 = 36.4330$, $p > 0.001$
Spearman's rho = 0.0366

Tables 2A - 2F: Ideology and Perception of Community Environmental Problems

Column percentages in italics

2A: Traditional Values and Poor Water Quality

	Traditional Left	Traditional Centre	Traditional Right	TOTALS
Very Serious	495 *22.68*	1248 *18.97*	299 *18.97*	2042 *19.75*
Somewhat Serious	762 *34.91*	2286 *34.74*	546 *34.74*	3594 *34.76*
Not Very Serious	563 *25.79*	1749 *26.58*	400 *25.38*	2712 *26.23*
Not at all Serious	274 *12.55*	928 *14.10*	213 *13.52*	1415 *13.69*
TOTALS	2183 *100.00*	6580 *100.00*	1576 *100.00*	10,339 *100.00*
	Chi2 = 21.4020, p > 0.01 Spearman's Rho = -0.0030, prob. |t| > 0.7992			

2B: Post-Materialist Values and Poor Water Quality

	Post-Materialist	Mixed	Materialist	TOTALS
Very Serious	495 *22.68*	1248 *18.97*	299 *18.97*	2042 *19.75*
Somewhat Serious	762 *34.91*	2286 *34.74*	546 *34.74*	3594 *34.76*
Not Very Serious	563 *25.79*	1749 *26.58*	400 *25.38*	2712 *26.23*
Not at all Serious	274 *12.55*	928 *14.10*	213 *13.52*	1415 *13.69*
TOTALS	2183 *100.00*	6580 *100.00*	1576 *100.00*	10,339 *100.00*
	Chi2 = 236.4796, p > 0.001 Spearman's Rho = -0.1586, prob. |t| > 0.0000			

2C: Traditional Values and Poor Air Quality

	Traditional Left	Traditional Centre	Traditional Right	TOTALS
Very Serious	352 *24.14*	1085 *23.27*	322 *25.52*	1759 *23.83*
Somewhat Serious	321 *22.02*	952 *20.42*	245 *19.41*	1518 *20.56*
Not Very Serious	339 *23.25*	1144 *24.53*	272 *21.55*	1755 *23.77*
Not at all Serious	446 *30.59*	1482 *31.78*	423 *33.52*	2351 *31.84*
TOTALS	1458 *100.00*	4663 *100.00*	1262 *100.00*	7383 *100.00*
	Chi2 = 10.2939, not significant Spearman's Rho = 0.0093, prob. |t| > 0.4222			

2D: Post-Materialist Values and Poor Air Quality

	Post-Materialist	Mixed	Materialist	TOTALS
Very Serious	211 *17.45*	1280 *23.71*	802 *29.66*	2293 *24.63*
Somewhat Serious	273 *22.58*	1086 *20.12*	524 *19.38*	1883 *20.22*
Not Very Serious	314 *25.97*	1316 *24.38*	573 *21.19*	2203 *23.66*
Not at all Serious	411 *34.00*	1716 *31.79*	805 *29.77*	2932 *31.49*
TOTALS	1209 *100.00*	5398 *100.00*	2704 *100.00*	9311 *100.00*
	Chi2 = 75.2003, p > 0.001 Spearman's Rho = -0.0667, prob. |t| > 0.0000			

2E: Traditional Values and Poor Sewage and Sanitation

	Traditional Left	Traditional Centre	Traditional Right	TOTALS
Very Serious	332 *23.02*	1069 *23.03*	349 *27.85*	1750 *23.85*
Somewhat Serious	269 *18.65*	876 *18.88*	237 *18.91*	1382 *18.84*
Not Very Serious	307 *21.29*	1005 *21.65*	233 *18.60*	1545 *21.06*
Not at all Serious	534 *37.03*	1691 *36.44*	434 *34.64*	2659 *36.25*
TOTALS	1442 *100.00*	4641 *100.00*	1253 *100.00*	7336 *100.00*
	Chi2 = 15.7761, p > 0.05 Spearman's Rho = -0.0285, prob |t| > 0.0147			

2F: Post-Materialist Values and Poor Sewage and Sanitation

	Post-Materialist	Mixed	Materialist	TOTALS
Very Serious	214 *17.82*	1271 *23.73*	892 *33.11*	2377 *25.69*
Somewhat Serious	171 *14.24*	1045 *19.51*	601 *22.31*	1817 *19.64*
Not Very Serious	267 *22.23*	1149 *21.45*	493 *18.30*	1909 *20.64*
Not at all Serious	549 *45.71*	1891 *35.31*	708 *26.28*	3148 *34.03*
TOTALS	1201 *100.00*	5356 *100.00*	2694 *100.00*	9251 *100.00*
	Chi2 = 230.9657, p > 0.001 Spearman's Rho = -0.1540, prob. |t| > 0.0000			

Tables 3A - 3F: Ideology and Perception of Global Environmental Problems

Column percentages in italics

3A: Traditional Values and Global Warming

	Traditional Left	Traditional Centre	Traditional Right	TOTALS
Very Serious	1149 *65.92*	2981 *58.08*	735 *55.51*	4865 *59.33*
Somewhat Serious	499 *28.63*	1788 *34.83*	480 *36.25*	2767 *33.74*
Not Very Serious	87 *4.99*	322 *6.27*	84 *6.34*	493 *6.01*
Not at all Serious	8 *0.46*	42 *0.82*	25 *1.89*	75 *0.91*
TOTALS	1743 *100.00*	5133 *100.00*	1324 *100.00*	8200 *100.00*

Chi2 = 57.2110, p > 0.001
Spearman's Rho = 0.0695, prob. |t| > 0.0000

3B: Post-Materialist Values and Global Warming

	Post-Materialist	Mixed	Materialist	TOTALS
Very Serious	858 *63.89*	3429 *58.93*	1609 *56.71*	5896 *58.97*
Somewhat Serious	408 *30.38*	1987 *34.15*	1009 *35.57*	3404 *34.04*
Not Very Serious	65 *4.84*	351 *6.03*	175 *6.17*	591 *5.91*
Not at all Serious	12 *0.89*	52 *0.89*	44 *1.55*	108 *1.08*
TOTALS	1343 *100.00*	5819 *100.00*	2837 *100.00*	9999 *100.00*

Chi2 = 26.3973, p > 0.001
Spearman's Rho = 0.0424, prob. |t| > 0.0000

3C: Traditional Values and Loss of Plants/Animals

	Traditional Left	Traditional Centre	Traditional Right	TOTALS
Very Serious	1078 *61.11*	2675 *51.50*	657 *49.32*	4410 *53.20*
Somewhat Serious	552 *31.29*	1948 *37.50*	514 *38.59*	3014 *36.36*
Not Very Serious	122 *6.92*	508 *9.78*	139 *10.44*	769 *9.28*
Not at all Serious	12 *0.68*	63 *1.21*	22 *1.65*	97 *1.17*
TOTALS	1764 *100.00*	5194 *100.00*	1332 *100.00*	8290 *100.00*

Chi2 = 63.7661, p > 0.001
Spearman's Rho = 0.0798, prob. |t| > 0.0000

3D: Post-Materialist Values and Lost of Plants/Animals

	Post-Materialist	Mixed	Materialist	TOTALS
Very Serious	765 *56.75*	3084 *52.49*	1541 *52.54*	5390 *53.07*
Somewhat Serious	476 *35.31*	2184 *37.17*	1075 *36.65*	3735 *36.78*
Not Very Serious	96 *7.12*	539 *9.17*	272 *9.27*	907 *8.93*
Not at all Serious	11 *0.82*	68 *1.16*	45 *1.53*	124 *1.22*
TOTALS	1348 *100.00*	5875 *100.00*	2933 *100.00*	10,156 *100.00*

Chi2 = 15.0957, p > 0.05
Spearman's Rho = 0.0233, prob. |t| > 0.0187

3E: Traditional Values and Pollution of Rivers/Lakes

	Traditional Left	Traditional Centre	Traditional Right	TOTALS
Very Serious	1260 *70.51*	3326 *63.61*	879 *65.26*	5465 *65.35*
Somewhat Serious	452 *25.29*	1580 *30.22*	401 *29.77*	2433 *29.09*
Not Very Serious	63 *3.53*	283 *5.41*	56 *4.16*	402 *4.81*
Not at all Serious	12 *0.67*	40 *0.76*	11 *0.82*	63 *0.75*
TOTALS	1787 *100.00*	5229 *100.00*	1347 *100.00*	8363 *100.00*

Chi2 = 32.5688, p > 0.001
Spearman's Rho = 0.0394, prob. |t| > 0.0003

3F: Post-Materialist Values and Pollution of Rivers/Lakes

	Post-Materialist	Mixed	Materialist	TOTALS
Very Serious	954 *70.41*	3869 *65.20*	1922 *63.64*	6745 *65.43*
Somewhat Serious	353 *26.05*	1736 *29.26*	914 *30.26*	3003 *29.13*
Not Very Serious	42 *3.10*	287 *4.84*	154 *5.10*	483 *4.69*
Not at all Serious	6 *0.44*	42 *0.71*	30 *0.99*	78 *0.76*
TOTALS	1355 *100.00*	5934 *100.00*	3020 *100.00*	10,309 *100.00*

Chi2 = 25.2799, p > 0.001
Spearman's Rho = 0.0695, prob. |t| > 0.0000

Table 4: Factor Analysis of Environmental Problem Perception Variables
Varimax Rotation

	Factor 1: Local	Factor 2: Global	Uniqueness
Poor Water Quality	0.8716	0.0892	0.2323
Poor Air Quality	0.8300	0.1282	0.2946
Poor Sewage and Sanitation	0.8207	0.1031	0.3159
Global Warming	0.0889	0.6473	0.5731
Loss of Plants/Animals	0.1356	0.7436	0.4286
Pollution of Rivers/Lakes	0.1438	0.7204	0.4604
Eigenvalues	2.16911	1.52386	

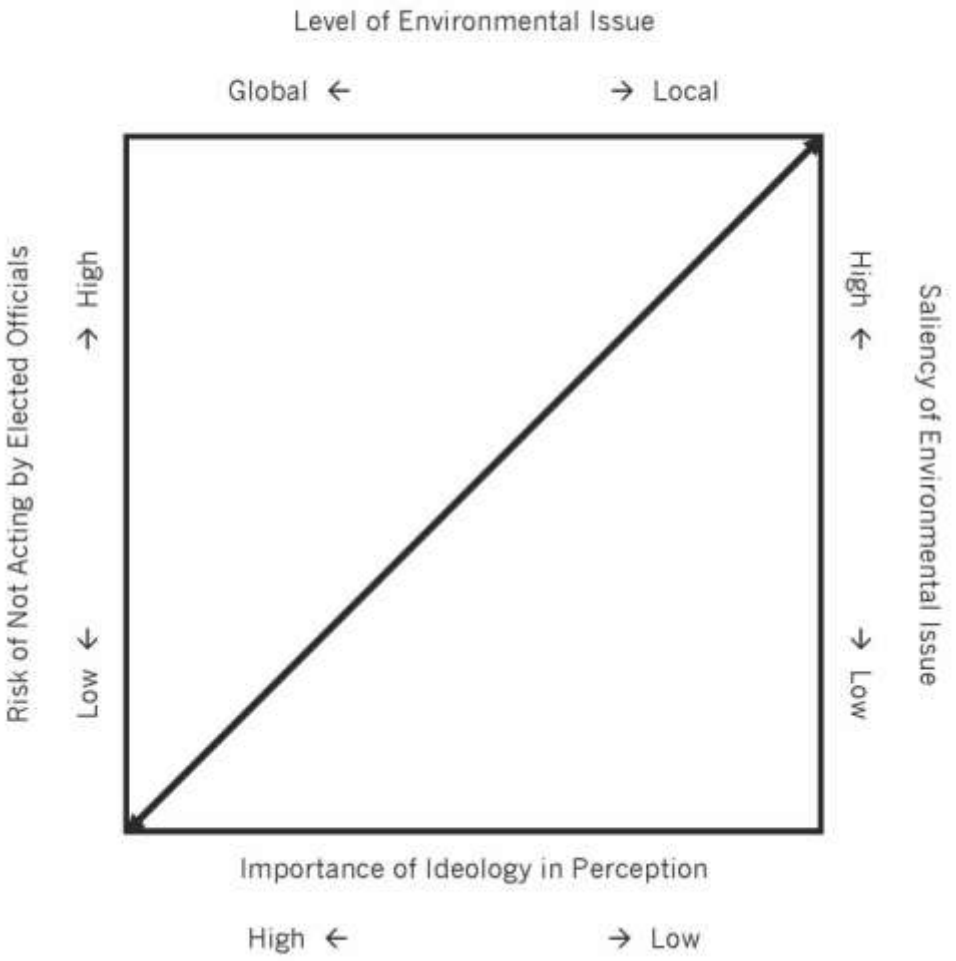
N = 8895

Table 5: Regression Models
Robust standard errors in italics

	Local	Global
Left/Right (3 categories) Ideology	0.0229033	0.055376***
	0.0190085	*0.0184487*
Materialist/Post-materialist Ideology	-0.0017012	0.0602382****
	0.0190076	*0.0184487*
Attitudes toward Environment	0.0310227***	0.158427****
	0.0104775	*0.0108867*
Respondent's Gender	-0.0437634**	-0.0988866****
	0.0217129	*0.0222795*
Respondent's Age	-0.009315	-0.0006251
	0.0006837	*0.0007003*
Respondent's Education Level	-0.0058586	-0.0254011****
	0.0057353	*0.0060806*
Respondent's Social Class	0.0256282*	0.0080128
	0.0141299	*0.0142691*
Constant	1.780408	0.8746563
	1.328567	*1.35982*
N	5709	5709
Adjusted R^2	0.3379	0.1085

Country variable absorbed, significant at p > 0.001
**** p > 0.001, *** p > 0.01, ** p > 0.05, *p > 0.10

Figure 1: Depiction of the Model



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