CULTURAL CHANGE AND ENVIRONMENTALISM: A CROSS-NATIONAL APPROACH OF MASS PUBLICS AND DECISION MAKERS

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The evidence continues to accumulate: cultural factors exercise a considerable impact on public attitudes and behaviors toward the environment and the way the public frames environmental issues (e.g., DUNLAP, GALLUP & GALLUP, 1993a; INGLEHART, 1990, 1995, 1997; KEMPTON, BOSTER & HARTLEY, 1995; STERN, DIETZ & GUAGNANO, 1995, 1998; STERN, DIETZ, KALOF & GUAGNANO, 1995). In many cultures, fundamental value changes have evoked growing environmental concern together with public support for environmental protection. In addition to meeting the objective challenge of environmental degradation, cultural value changes have provoked public expression of concern and determined their willingness to make sacrifices and to undertake actions to help protect the environment. Research indicates that value change in particular cultural regions, for example northwestern Europe, gave rise to the highest level of environmental consciousness and environmental protection support in the world, despite the relatively low objective pollution level in these regions (cf. INGLEHART 1995, 1997). Gradual cultural change, associated with growing prosperity and material security, has generated publics highly sensitive to environmental problems.

But this heightened environmental awareness among citizens is only one result of cultural change. These same culture shifts are closely linked with increasing

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Received in 13/09/2004 – Accepted in 08/10/2004.

energy consumption levels. Paradoxically, the growing public level of environmental concern and willingness to support environmental action is rising simultaneously with energy consumption levels and use of scarce resources. Values, too, play a major role in the development of this paradox. Research in many modern, postindustrial societies delineates that people place higher emphases on the basic values of personal freedom, personal development, and personal responsibility (e.g., ESTER & HALMAN 1994; VINKEN, ESTER, & DE BONT 1997). This changing motivational make-up, summarized in the term "*individualization*", has strongly influenced human activities. Moreover, these basic value shifts have transformed entire lifestyles, consumption patterns, fertility rates, and household sizes. Compliance with the basic motivation to fulfill salient personal goals goes hand-in-hand with human behavior that places higher claims on energy resources.

This paradox is a classic theme in environmental politics. Political and policy interventions designed to solve environmental problems are unlikely to succeed unless they account for this paradox (cf. ESTER & MANDEMAKER 1994; ESTER, VINKEN, & VAN DER STRAATEN 1999). Understanding the impact of values and their influence on environment-related attitudes and behaviors is the ultimate prerequisite for the development and implementation of environmental policies. The identification of motivations underlying public support or opposition to a given set of environmental policies will indicate how solid or fluid this support or opposition is and will offer basic insight into considerations that may alter supportive or oppositional orientations. Thus, taking account of the cultural factor is essential both in studying environmental issues and in dealing with environmental problems. Providing policymakers and opinion leaders in the environmental arena with feedback on the cultural factor is one of the two main goals of the cross-cultural Global Environmental Survey (GOES) project.

Another major goal is to clarify a set of theoretical issues involving the linkage between environmentally relevant values, attitudes, and behaviors. Research carried out in many countries indicates that particular values directed at societal goals have a strong impact on environmentally related political action. Results show that these values exercise a more powerful influence on environmentally relevant political behavior than do particular attitudes (e.g., attitudes toward the severity and danger of environmental problems). A second line of research associates personal life goal values with pro-environmental attitudes and behaviors. Until now, these two lines of research have remained relatively separated. They have neither been theoretically integrated, nor have they been empirically tested simultaneously. The GOES project aims to demonstrate the overlap or complement of the two approaches in explaining environmentally relevant behavior. Moreover, GOES studies environmental behavior in a much broader perspective. Most of the environmental research projects that associate values, attitudes, and behaviors are limited to political action willingness. Only a few studies have examined the (direct or indirect) influence of values on energy use and consumer behavior.

Thus, the main focus of the GOES project is the impact of cultural influences on environmental attitudes. GOES examines the cultural impact from a

basic cross-national perspective, investigating the impact of cultural change and value shifts on environmental concern, attitudes, and behavior in countries located on several continents. The main scientific tool applied was a large-scale, standardized questionnaire on environmental values, concern, attitudes, and behaviors. It was fielded among representative samples of populations and environmental decision makers in both Western and non-Western societies. First, we will examine trends observed in social-scientific environmental survey research in the last three decades. Following this, we detect important remaining questions that inspired the GOES project.

CHANGING VALUES, ATTITUDES, AND BEHAVIORS

The interest for public environmental concern boomed from the 1970s onwards (JOHANSSON, 1995: 319). An increasing number of surveys, conducted by both commercial polling agencies and independent groups of academic social scientists, emerged, measuring public attitudes toward environmental issues. Since the late 1980s, the geographical scope of these surveys has widened strongly, covering not only advanced industrial and post-communist societies, but also developing societies or metropolitan areas within developing societies (e.g., the Harris UN Survey, Gallup's Health of the Planet Survey, the ISSP-Environmental and Reap Module, and the World Values Survey). In some of these "global" surveys, environmental attitudes are of but secondary interest, and in other survey studies the measured range of environmentally relevant values, attitudes, and behaviors is particularly slim.[1] In this section, which is by necessity a concise one, we deal with evidence regarding change in values, attitudes, and behaviors drawn from prime national and cross-national surveys that preceded and inspired GOES.

Simões (2001) describes how most survey analysts seek description, understanding, and explanation of the individual response to environmental change through an equation comprising values, beliefs, attitudes, knowledge, and behavior related to environmental issues. Central to the discussion regarding public environmental attitudes is the concern for changes in the quality of the environment at global, national, and local levels (DUNLAP & MICHELSON, 2000) and the impact of this concern on pro-environmental behavioral routines. Since the first Club of Rome report in the early 1970s (MEADOWS et al. 1972), the public has become increasingly aware of ecological problems emerging in modernizing societies (e.g., ESTER, HALMAN & SEUREN 1993). A wide range of subsequent social psychological, political science, and sociological studies focused on the relationship between environmental concern and environmentally friendly behaviors (e.g., offering willingness, environmental action readiness, likelihood to recycle, prudence in waste treatment, and inclination to change toward a "green" consumption pattern and lifestyle; see ESTER 1979 a,b; ESTER, HALMAN & SEUREN 1996; NELISSEN & SCHEEPERS 1992; VAN DER MEER 1980). However, results show that the parallel between environmental concern and pro-environmental behavior is not uncontested. Many studies indicate that individuals with a high level of environmental concern are not

necessarily characterized by strong adherence to environmentally friendly behavior (e.g., STEG, 1999). Basically, the attitude-behavior consistency depends strongly on the individual's perception of control of the behavior in question (see such classic authors as BANDURA, 1977, 1986, and AJZEN & FISHBEIN 1980; see also BECKERS, ESTER & SPAARGAREN 1999). Behavioral control, related to the concept of self-efficacy, seems to be a major correlate of environmental attitudes and behaviors, although the relationship between these attitudes and behaviors is far from conclusively defined in existing research (see BECKERS, ESTER & SPAARGAREN 1999).

Concern regarding environmental problems is part of a structure of attitudes that in turn is based in values. Different environmental problems may touch upon different values; hence the public has the opportunity to demonstrate pro-environmental attitudes toward one set of environmental problems and contra-environmental ones toward another set of problems, dependent on the value or values in which the environmental problem is based. One influential factor determining the relationship between public sentiment about the present or future state of the environment and the repertoire of environmentally relevant behaviors is, therefore, found in the domain of values. German sociologist Ulrich Beck penned the classic text Risk Society (1992), which addresses the relationship between public sentiment, environmentally relevant behaviors, and values. Beck linked the environmental issue to the very heart of the modernization process. In modern industrialized societies based on the logic of distributing wealth, he explained, environmental deterioration is seen as a "negative side effect." The production and development of risks to global, supra-national, and nonclass-specific hazards is characteristic of postindustrial society, which is based on the logic of diminishing and distributing risks. Risks such as those associated with environmental problems were once considered side effects but now have become focal themes with which the public strongly identifies. Thus it has begun to strive for economic development under stricter conditions.[2] The prerequisite for changing toward a "reflexive society," a society in which people and institutions are less restricted by classical social divisions and can actively deal with the risks that are now in the center of attention, is a successful modernization in terms of material welfare for a large share of the population.

This line of reasoning is also found in the widely cited value theory of the American political scientist Ron Inglehart (1977, 1990, 1997). Modernizing societies undergo a shift from materialist to postmaterialist values, according to Inglehart, and this shift is underpinned by rapid economic growth and the expansion of welfare states. Cohorts arising and socialized in periods of severe economic and physical insecurity emphasize materialist values in which high priority is placed on economic growth and political stability. However, younger generations are born under the affluence of post-war industrial societies. For these generations, self-expression and quality of life, both postmaterialist values, are given highest priority. In theory, these value emphases and priorities last throughout the cohorts' life span,[3] and generational replacement colors advanced societies in an increasingly postmaterialist shade.[4] Strongly related to postmaterialist values is concern for a darker side of the old industrial society that

poses a threat to efforts toward higher quality of life: environmental deterioration. Postmaterialists appear very concerned about the environment and are most willing to take action (e.g., INGLEHART, 1995; INGLEHART & RABIÉR 1986). However, Inglehart's theory has met with extensive comments from environmental sociologists (e.g., DUNLAP & MERTIG 1995, 1996). They have especially questioned the alleged relationship between economic affluence and pro-environmental attitudes. Environmental concern, according to the critics, is not a luxury afforded only by societies characterized by economic security. They seek to show that, contrary to the suggestions of Inglehart and conventional wisdom, many correlates of environmental attitudes (including personal concern for environmental problems and economic parameters, such as GNP per capita) are negative or merely absent (see, e.g., DUNLAP & MERTIG, 1996: 155).[5]

One critic, Riley Dunlap, has hypothesized with his co-authors the likelihood of an emerging "New Ecological Paradigm" (DUNLAP & VAN LIERE 1978, 1984; OLSEN, LODWICK & DUNLAP 1992).[6] This paradigm builds on the relationship of man with nature. Dunlap and colleagues observe a fundamental shift from a primarily technologically to a primarily ecologically inspired social value pattern. In this view, environmentalist attitudes are closely linked with other basic values: particularly religious orientations, cosmopolitanism, technological views, and political attitudes. Again, similar to Beck's argument, these represent the public's need to fundamentally restructure society based on ecological principles. Extending this link among basic human values, a number of American scientists, primarily psychologists, distinguished a number of stable and coherent value clusters that correlate strongly with environmental attitudes and behaviors (DIETZ et al. 1995; STERN & DIETZ 1994; STERN, DIETZ & GUAGNANO 1995, 1998; STERN, DIETZ, & KALOF 1993; STERN, DIETZ, KALOF, & GUAGNANO 1995). These clusters are derived from a values inventory defined by the social psychological value theorist Schwartz (1992, 1994). [7] The clusters range from homocentric concerns for the welfare of one's self and family to holistic ecocentric perspectives in which human well-being is seen as inseparable from that of the environment. A number of differently labeled value clusters circulate, distinguishing among self-interest, concern for others, and concern with the biosphere and were eventually termed egoistic, altruistic, and biospheric, respectively. Stern's high-impact Schwartz adaptations are used primarily on American data, independent of the work of Inglehart and colleagues. Thus we can assert that there are at least two autonomous lines of environmental value research: One centering on postmaterialism (Inglehart et al.) and the other on value universals or basic values (Stern et al.).

Knowledge serves as an ambivalent factor in the relationship between values, concern, and behavior regarding environmental problems. Several studies indicate that public understanding of such environmental problems as global warming is poorly developed (Dunlap, 1998; Pierce & LOVRICH, 1982). If the scope, causes, and consequences of environmental problems are poorly understood by the public, it may come as no surprise that there is both low awareness of these problems and minimal

concern for their impact. Effects of scanty public knowledge are, however, not undisputed (SIMÕES 2001), since correspondence between concern and knowledge is hard to interpret (BECKER et al. 1996, 19). Does knowledge generate concern, or does concern inspire the search for information? One might argue that information precedes the formation of attitudes and beliefs and is more directly related to values. Values, for instance, provoke people to seek information and may function as filters for information, influencing beliefs by making people accept information when consonant and reject information when dissonant with their values.

The subject of beliefs also comes to the fore in the debate about the public's relationship to environmental issues. Values are criteria remaining relatively stable over the life course that guide action and underpin the development and maintenance of attitudes toward relevant objects such as environmental problems (cf. Rokeach 1968). Beliefs, however, are expectations about how the attitude object, the problem at hand, affects people and the things they value. Values are believed to be closely knit with beliefs regarding consequences for the valued object, and some analyses use products of values and beliefs only to predict behavioral intentions (see STERN & DIETZ, 1994). The distinction between attitudes and beliefs (not to mention that between beliefs as specific cognitions about consequences and knowledge) is unclear. In some lines of research, attitudes coincide with environmental concern, while in others attitudes are judgments of objects as functions of risks or benefits attached to those objects (STERN, DIETZ & GUAGNANO 1995, 1613). These risk perception attitudes clearly overlap with beliefs defined as consequence judgments for valued objects. All in all, the discussion presented here does not unequivocally suggest the existence of an optimal theoretical or analytical model for looking at the relationship between environmentally relevant values, beliefs, attitudes, information, and behaviors.

REMAINING QUESTIONS AND THE GLOBAL ENVIRONMENTAL SURVEY

Three decades of scientific research into the environmental issue have generated many valuable insights, but perhaps even more unanswered questions. This section addresses these remaining questions. Indeed, providing an empirical answer to some of the following questions is the focal concern of the GOES project. Two types of questions have, until now, not been answered unequivocally. The first type of question deals with the mutual relationship between environmental values, between environmental attitudes, and between environmental behaviors. The second type of question focuses on an assessment of the impact these values and attitudes exert on behaviors.

Clearly, the previous discussion indicates that the relationship between environmental values, attitudes, and behaviors remains open to debate. Two lines of value research have developed: the ascertainment of postmaterialist values (emerging primarily due to generational replacement), and the identification of a comprehensive

inventory of human values (of which some are profoundly ecological). Both streams of value research are at odds as to the underlying principle on which environmental attitudes and behaviors are based. So far, little research has integrated both perspectives or addressed the question of the extent to which the two overlap or complement each other. First, the complex relationship between concern for the environment and information about environmental problems remains unclear. Next, the relationship among perceived behavioral control, concern for the human role in the environment, assessments of the most significant player in environmental issues, and attitudes toward environmental protection must still be clarified. Perceived self-efficacy, the idea that the individual can effect positive change in combating environmental problems, seems to play a major role in this relationship. However, the exact definition of this role within the context of other basic attitudes regarding individual impact in environmental protection and basic attitudinal controversies in the ecology-economy trade-off debate requires urgent clarification.

Another intriguing area in environmental research is the importance of public willingness to act in the best interest of the environment, support for environmental policies that vary in individual cost and lifestyle adaptation, and effect of political orientation on the environment. The main issue at stake in this discussion is the ideological-political segmentation of pro-environmental positions. Finally, the concurrence of different behavior types among the public is highly indistinctive in environmental studies. Many separate studies deal either with "green" consumption, recycling and saving behavior, energy use, or travel behavior. An approach that integrates these behaviors and analyzes the overlap is scarce, and the search for a "green" consumer on all behavior types is a relatively recent challenge.

Assessing the impact of all the previously mentioned factors on pro-environmental behaviors in the broad sense mentioned earlier, is another intriguing issue. Little is known about which of the two presented traditions of value research has the strongest impact on actual behavioral routines and policy preferences. The relationship between values and willingness to take political action has been previously investigated (especially as concerns postmaterialism). However, the association of values and more profane non-political behaviors, such as saving energy or water and traveling by automobile, have not been previously surveyed. Findings concerning the relationships of attitudes, behaviors, and policy priorities under the condition of values are also vague. Moreover, the combined impact of values and attitudes on behaviors and policy stances relative to influences of other key variables, such as social structural or contextual factors, calls for further exemplification. Finally, defining a space that delineates the social and cultural dimensions and is based on elaborate input about values, attitudes, and social characteristics of environmental behavior remains on the environmental research agenda.

The Global Environmental Survey (GOES), a large-scale international survey project aimed to analyze from a comparative perspective values, attitudes, and behaviors affecting the environment, endeavors to tackle the aforementioned questions.[8] It focuses especially on behaviors that exert a strong impact on energy

consumption, and accordingly on air pollution and climate change, as well as behaviors conditional to change toward sustainable development. These behaviors, together with values and attitudes, are measured among publics and elites in societies at various stages of economic development. A terminal goal of the GOES project is to provide input for models that forecast future energy consumptions. Thus, input consists of data on the cultural factor—the factor of shifts in values and attitudes that are primary molders of public behavior and that may close the gap between technical and social feasibility. Taking into account this cultural factor, the culturally determined considerations of the public, is a prerequisite for the public acceptability and subsequent success of policies. The key priority of the Global Environmental Survey is to gain an understanding of the motives underlying mass support for policies designed to solve environmental problems and behaviors affecting global change.

THE GOES DECISION MAKERS' MODULE

One innovative feature of the GOES project is that it deliberately moves beyond a mere cross-cultural study of population-wide environmental values, attitudes, and behaviors, aiming to compare the framing of environmental issues by national populations and by leading national environmental decision makers and opinion leaders. In 1997 GOES participants decided to add a decision makers' module to the standard GOES survey of national general public samples. The new module enables us to study differences between environmental decision makers and general public attitudes and policy preferences in the environmental policy arena. The module further enables us to facilitate cross-national comparisons in this respect. The theoretical rationale underlying this module is closely related to the issue of political representation, a classic topic in political science theory and research. In one of the first studies in this field, McClosky, Hoffmann, and O'Hara (1960) found that Democratic and Republican leaders were far more divided on salient political issues than were their respective supporters, but that the level of political consensus among the electorate was fairly high. In a study of Dutch members of parliament (MPs) and voters, Thomassen (1976) found substantial political dissensus between the elected and the electorate; moreover, dissensus between party elite and voters was greatest among leftist parties. For most political issues, contrasts were more prominent among MPs than among voters, and voters were aware of these contrasts, albeit less aware than MPs realized. In a follow-up study, Thomassen (1981a,b) again found that the electorate was less politically polarized than MPs, and that generally MPs were more leftist than their voters. Putnam (1976a) summarizes these differences in the phrase "elite mass displacement." This phenomenon of systematic and marked differences in political attitudes between the political elite and constituents has been widely confirmed, both in national and local politics (VAN SCHENDELEN 1981; STROMBERG 1977; THOMASSEN 1986).

Dekker and Ester (1988, 1989) hypothesized that attitudinal differences between politicians and voters may stem from insufficient or inaccurate knowledge among politicians of voters' political attitudes and policy preferences. They found

politicians' knowledge of voter preference generally quite defective. Politicians' accuracy in estimating voter support for topical political attitudes is low, even with respect to a matter as simple as judging which party has more support. This may pose a crucial problem for environmental policy-making.

Are the phenomena of elite mass displacement and cognitive responsiveness observable in the field of environmental attitudes and policy preferences? Some evidence suggests that this is indeed the case (cf. WORCESTER 1993; MERTIG & DUNLAP 1993). A systematic "global" contrast between how electoral masses and political elites evaluate causes and solutions to environmental problems, as well as a systematic bias in how political elites estimate environmental attitudes and preferences among the general public, would seriously hamper the effectiveness of both national and international environmental policies. Over- or underestimation of support for environmental policies by environmental decision makers would constitute a major constraint in implementing environmental strategies that correspond with the public "will." In order for politicians to be effective in environmental policy, they must accurately perceive how the public evaluates environmental policy instruments, since public acceptability is a major prerequisite to policy effectiveness. It seems, though, that political leaders are often poorly informed about what issues, attitudes, and actions are supported by mass publics and relevant elites. The rise of nuclear power plants is a historic illustration of this conundrum. Hundreds of billions of dollars were spent to develop nuclear power, with the use of advanced technology. However, in most societies nuclear power was in the end politically unacceptable because of its social unacceptability.

Policies designed to solve environmental problems are unlikely to succeed unless they have broad political support. This in turn implies that decision makers responsible for environmental policy need an accurate understanding both of general public environmental attitudes and policy preferences and of broader social, political, economic, and cultural values affecting those attitudes and preferences. If decision makers lack this electorate connection, they face serious problems in convincing the public of the legitimacy of proposed environmental policies.

We believe it can thus be convincingly argued that a systematic (cross-national) analysis of environmental attitudes and policy preferences of both the general public and major decision makers, as well as decision makers' cognitive competence in estimating attitudes and preferences of the public at large, will generate crucial explanatory factors in understanding environmental policy acceptance. Though, of course, the political domain has its own relative autonomy and responsibility, and though politics is not merely a linear transformation and translation of public preferences, an accurate understanding of public preference is highly decisive in designing effective and socially acceptable environmental policies.

Thus, in addition to the general national sample GOES study, GOES participants agreed upon an additional decision makers' module that addresses the following questions: Do environmental decision makers hold environmental attitudes and policy preferences that are distinct from the public at large? How accurate are

environmental decision makers in estimating actual environmental attitudes and policy preferences among the public at large? Is there a systematic bias in environmental decision makers' estimates of environmental attitudes and environmental policy preferences of the general public? Are there systematic cross-national differences in this respect?

A final rationale for inclusion in this module among high-ranking environmental decision makers relates not only to the cross-national nature of GOES but also to its transnational significance. In the last decade the international community has signed a number of international environmental treaties at various governmental meetings (such as Agenda 21, Rio de Janeiro Summit). The GOES participants agreed to investigate how leading national environmental decision makers evaluated a series of policies related to these treaties and how they evaluate their national policies to comply with these treaties. These evaluations provide us with exciting possibilities for analysis of compliance with internationally agreed environmental conventions from a global perspective. Thus, the final question to be answered by this module is this: How do decision makers value a number of policies that are direct implementations of international environmental treaties, and how do they judge their own national performance in this respect?

These, then, are the fundamental questions underlying the Decision Makers' Module—in the eyes of the GOES participants a highly original addition to the general public survey. A systematic comparison between environmental attitudes and preferences of the public at large and leading national decision makers not only enhances the theoretical significance of the GOES project but also strengthens its international policy relevance. It provides us with unique possibilities to study cross-nationally the similarities and dissimilarities in environmental attitudes and policy preferences between the general public and environmental policy makers. In this sense, the GOES project moves beyond previous and existing environmental attitude research projects.

GOES COUNTRY CHARACTERISTICS

The GOES Mass Public' Module conducted national probability surveys in Japan, the Netherlands and Germany; a probability survey in the state of Minas Gerais in Brazil; and quota surveys in three regions of China; in Manila in the Philipines and in Bangkok in Thailand.

The GOES Decision Makers' Module conducted national surveys in Canada, in Japan and in the Netherlandas; a survey in the state of Minas Gerais in Brazil and in six regions of China. The sampling procedure used was a non-random selection of individuals from business, media, NGOs and government agencies with impact on environmental policy making. The fielding of the GOES Mass Public modules took place in the period 1997-1998 and the Decision Maker modules in 1998 - 2000.[9]

The countries involved in this study vary strongly on a focal set of dimensions: country size, number of inhabitants, level of economic achievement and,

of course, relevant environmental issues. The Netherlands is a small, highly modernized country, densely populated with 16 million inhabitants. The nation is very active in environmental policy-making, and in the international arena it endeavors to organize public support for its growth to sustainable development. Germany is also highly engaged in this type of environmental policy-making. It is much larger than the Netherlands, has a population of 80 million, and is a strong player in the global economy. Canada is also a highly modernized country, albeit relatively "empty." Its population of 31 million occupies an enormous land surface with a much richer spectrum of natural resources than the two European countries. The lack of natural resources is a central issue in Japan, a large, economically influential, and densely populated country (126 million) with serious pollution and waste problems. Germany, the Netherlands, Canada, and Japan are confronted with totally different environmental problems than large developing countries such as China (population 1.2 billion) and Brazil (174 million) or the smaller, but also densely populated developing countries of Thailand (61 million) and the Philippines (79 million). Deforestation, desertification, land erosion, and air and water pollution are, together with stagnated economic growth, serious problems in these countries (and their urban areas).

In addition to size, economic achievement, and current environmental issues, these countries differ in basic cultural characteristics. The fundamental value distinctions evident among Western, South American, and Asian countries are strongly related to the political and religious histories of each country. The variance in basic values coincides with a divergent pattern of religious traditions, political customs, and civic cultures. Inglehart's cross-cultural study (1997) shows China to be least and the Netherlands most postmaterialist (7 and 32 percent postmaterialist, respectively); other nations fall somewhere between the Netherlands and China, albeit closer to the former than the latter (INGLEHART, 1997: 359). The variable interpersonal trust, a crucial variable related to civic culture, shows that Brazil scores very low and China and the Netherlands very high in this area (INGLEHART, 1997: 359; see also FUKUYAMA, 1995). Comparative data on national cultures (with the exception of China), collected by Hofstede (1980, 1998, 2001), indicate that the Philippines, Thailand, Brazil, and to a lesser extent Japan differ from the West due to their strong emphasis on "power distance" (accepting unequal distributions of power). The Japanese also rank high in "uncertainty avoidance" (feeling threatened by uncertain situations), the Philippines and Canada lowest. The Dutch and Canadians value "individualism" (taking responsibility for one's own affairs) most highly. The lowest "individualism" scores are found in Japan. Finally, "masculinity" (supporting assertive male roles and introverted female roles) is found most frequently in Japan and least often in the Netherlands (the Dutch are a factor 7 less "masculine").

FINDINGS FROM THE GLOBAL ENVIRONMENTAL SURVEY[10]

Rather than presenting an exhaustive summary of the main findings of the GOES study, we choose to focus on a selective number of substantive issues that

arise from our cross-cultural analyses. These issues are directly related to the very core of the GOES study: the way mass publics and decision makers frame environmental issues in general and sustainable development in particular, and the way environmental framing is rooted in basic social and cultural values. A stringent global sustainable development policy requires that not only national governments but also national publics are convinced of the necessity to redirect economic routes and lifestyles in consonance with the logic of sustainability, that is, finding the right balance between ecological, economic, and social parameters in which the legitimate needs of future generations have a recognizable place. The effectiveness of an emerging global sustainability policy depends not only on the willingness of national governments to ratify international environmental agreements but equally so on national publics' acceptance of effects on their lifestyles and consumption patterns. Implementing global environmental policies, in short, will succeed only when based on unequivocal public support, particularly when such policies require fundamental lifestyle changes. Realization of a sustainable global future will materialize only when the public, as part of the world community, agrees that societal goals embedded in sustainable policies are legitimate, just, efficient, and feasible.

From this perspective it is gratifying to conclude that in all countries of the GOES study, national publics have a clear sensitivity to the seriousness of environmental problems both at the national and international level. People in various continents clearly rank environmental degradation among their top societal concerns and are very aware of the necessity to take action. National sensitivity, of course, varies with the characteristics of the national environmental context. In the Netherlands people are particularly worried about air pollution, water pollution, and overpopulation, whereas in Germany industrial pollution and river pollution - and not overpopulation - are seen as severe environmental problems. Canadians, too, view air pollution as a most serious environmental issue in their country. For Brazilians, deforestation and water/sanitation issues constitute the most important environmental problems, reflecting the fact that Brazil contains about one-third of the tropical forests in the world and still faces a lacking urban infrastructure. In Japanese society industrial waste, air pollution, and toxic chemicals are seen as the most pressing environmental issues, a list of concerns, by the way, that does not include overpopulation. In China, though, overpopulation is a clear public concern together with air and water pollution.

It seems that especially in developing countries the rather abstract notion of "environment" is increasingly framed as a quality of life issue linked to classic social demands such as poor sanitation, polluted water, and inadequate housing. In this way major existential problems are "relabeled" as environmental issues. This may explain why in developing countries water pollution is seen by the public as the major environmental problem, whereas in developed countries the majority of the public cites air pollution. Thus, contextual national environmental data are indispensable in understanding national public environmental beliefs. But what about perceived seriousness of global environmental problems such as global warming, the loss of biodiversity, and the ozone hole? Such problems go beyond the "classic" environmental

issues, such as air and water pollution or noise, and by nature are long-term and abstract issues transcending national boundaries. Though they are not nearly on the level of traditional environmental issues, a substantial segment of the population, particularly in developed countries, recognizes the urgency of these issues. The existential problems associated with daily life in developing countries apparently hamper the preoccupation with more global environmental concerns. A certain level of economic prosperity is likely required for a flourishing global environmental agenda shared by the public.

What people from developing and developed countries do share, though, is a widespread conviction that government should take the lead in protecting the environment through regulatory measures and a stringent surveillance policy. In the developing countries this conviction has been increasingly directed to the local government, while in developed countries it has been more focused on the national government. Despite neo-liberal market forces, the general publics from the various countries participating in GOES emphasize the primary responsibility of their respective governments in fighting environmental degradation. Across different countries, people desire a strong, directive role of government in designing, implementing, and controlling environmental policy that moves far away from a laissez-faire mentality. Prompting governmental leadership to protect the environment does not imply, as our findings show, that citizens deny a role of their own. Interestingly, as the country results indicate, significant segments of the various populations believe that the individual can make a difference in helping to conserve the environment. When contemplating environmental issues, citizens of the world do not describe their role with a generalized feeling of low self-efficacy, nor do they feel handicapped by an acute lack of environmental knowledge. Thus, the present debate on global sustainable development is not burdened by a massive après-moi-le-déluge climate of public opinion. Such self-efficacy can be read as a very positive sign since contemporary (global) environmental problems typically are beyond the control of the ordinary citizen, being complex, large-scale, multi-fold, often abstract, and beyond individual time horizons. But as we will see later it can also be a frustrating sign in that citizens may be verbally willing to do their share even in addressing global environmental issues but at the same time fail to comprehend the causal relationship between their behavior and the global issue at hand.

At the very heart of the sustainability debate is the trade-off between environmental concerns and economic interests, for the sake not only of present but also of future generations. In some way or another, all major environmental disputes require governments, public and private advocacy and interest groups, and the public to weigh environmental and economic priorities. Although these priorities are not by definition contradictory, many environmental disputes often boil down to such a controversy. Faced with making this trade-off, the choice for the environment overrules that for economic interests among the populations of all countries surveyed in the GOES study. Citizens in both developed and developing countries prioritize environmental concerns over economic interests. This most remarkable finding clearly

opposes many public beliefs about the beliefs of the public. It even opposes many political beliefs about the public environmental mood, as we will see shortly.

Leaving aside the nuances reported in the country findings, the interim conclusion is that significant segments, if not majorities, of citizens are quite concerned about the state of the environment, particularly with respect to traditional environmental problems but less so regarding global issues. These citizens prompt government to take lead responsibility in improving the environment, at the same time affirming the role of the individual citizen, and take the side of the environment in the classic ecology-versus-economy controversy. But how do these environmentally "noble" attitudes and beliefs relate to citizens' willingness to accept environmental policy measures that affect their lifestyles, limit their freedom of consumption, put clear constraints on the private domain, and may increase the costs of living? Does environmental policy have noblesse oblige?

There appears to be fair agreement among citizens from countries surveyed by the GOES study to favor "soft" over "hard" environmental policy measures. Instruments such as mass campaigns to educate citizens to use less energy, to cut back on driving, and to produce less household waste are preferred over policy measures such as raising taxes on fuel, rationing energy usage, or limiting car use. In promoting pro-environmental consumer behavior, citizens prefer persuasive and regulatory policy measures to market instruments. The more that environmental policy instruments limit personal freedom and choice, the less these instruments meet with public support. Harsh, top-down policies with severe lifestyle implications are clearly disapproved by the vast majority of citizens from all countries included in the GOES study. Apparently, citizens are not yet ready to translate pro-environmental concerns into acceptance of far-reaching environmental policy measures. Citizens in both developed and developing countries seem to prefer voluntary lifestyle changes.

Moving from environmental concern via policy support to actual (reported) environmental behavior (a notoriously tricky issue in cross-national comparisons), we can conclude that persistent pro-environmental behavior does not describe citizens' environmental involvement and commitment. Our data indicate that environmentally relevant behaviors (e.g., transportation, energy use, recycling, household purchases, political activism) do not form a consistent and coherent pattern. Practice of one type of ecologically conscious behavior does not predict engagement in another. It is not that people reserve a distinctive spot in their mental software for judging the environmental impact of habitual behaviors. Their mental mapping probably consists of manifold decisional heuristics, including comfort, health, safety, price, efficiency, effectiveness, and social responsibility, which are likely to be hierarchically ordered and in competition with environmental heuristics. A focus on specific behaviors, though, reveals that citizens may be deeply involved in "green" behavior. In many developed countries recycling, for instance, has fairly reached the standard of habitual behavior, as the German and Dutch studies show. Recycling, practically a routine activity for the good citizen, is conveniently facilitated by a widely available infrastructure. Taking into account energy efficiency of household appliances and fuel efficiency of private

cars has also become standard practice. It is noteworthy that in Germany respondents in the western states often report higher pro-environmental behavior and attitudes than those in eastern states. This is related in part to differences in opportunity structures, social situation and, arguably, cultural differences in exposure to green ideas. The policy lesson from this is not to prompt "general" environmentally friendly consumer behavior, but to promote single citizen actions having positive environmental impacts and, certainly, to create appropriate opportunity structures.

The GOES project is distinctive in the sense that it studies, cross-culturally, the influence of basic social attitudes and human values on ecologically relevant behavior. The assumption is that human behavior is goal-oriented, guided by attitudes and values, and not merely the result of cognitive, rational mathematics unattached to deeper motivations. But as we saw in the introductory section of this article, the main question is whether human behavior is directly or more indirectly impacted by attitudes and values. It seems that the latter interpretation stands our empirical tests best. Attitudes and values do influence environmentally relevant behavior, but mildly so, leaving significant portions of variance unexplained. But then, of course, this is customary to most social survey analyses. In Brazil we observed that postmaterialist values and socio-altruistic/biospheric values are hardly related to pro-environmental behavior. In Germany, pro-environmental attitudes and environmentally consciously behaviors show weak correlations. Quite appropriately, our German colleagues' chapter in a book presenting the full findings of both GOES Modules (ESTER, VINKEN, SIMÕES & AYOAGI-USUI, 2003) is titled "Germans to the Green Front – By Car, Naturally". In that chapter, Molher and Harkness connect environmental behavior among Germans to habitual behavior, regulations and legislation. They argue that habitual behavior is habit reinforcing. In addition, the many pro-environmental regulations already in place in Germany mean that a number of regularly occurring environmentally friendly behaviors are mandatory, not optional. Disposal of domestic waste, for example, is highly regulated. Different bins for different types of garbage are compulsory. Collection costs for unsorted building waste are high, ensuring that this, too, is either sorted or dumped illegally. Not to sort (and to dump) is against the law. Thus those complying with regulations behave in a pro-environmental fashion, independent of whether they have pro-environmental attitudes or intentions. The reverse side of sorting also has economic appeal, as "garbage tourism" reflects: Garbage or waste is sometimes dumped (wild dumping or cuckoo dumping) in order to avoid paying for collection services. In Japan the influence of values on pro-environmental behavior is likewise limited but self-efficacy has some impact. In Japanese culture, Aoyagi-Usui argues in her GOES chapter, the norm of *mottainai*, rather than environmental concern, appears to be the main normative factor involved in environmentally friendly behavior. Japanese people have a *mottainai* feeling for using things that would otherwise be wasted. *Mottainai* is the urge to economize in order to avoid wasting something. It is related to feelings of regret and shame, but is not motivated by concern for the environment. When we asked respondents why they performed what we saw as pro-environmental actions, they often replied "because it

is *mottainai*". In the Netherlands we found that environmental attitudes do not make a marked difference in explaining pro-environmental behavior, but such value orientations as postmaterialism and biospheric commitments, self-efficacy, and prioritization of ecological concerns over economic interests have some impact. These findings leave us with the conclusion that environmentally relevant behavior is at best indirectly affected by basic human values and social attitudes. We know that environmental concern is widely diffused in both developed and developing countries, though framed in different terms, but apparently it loses its impact when competing with other prime concerns in major consumption decisions. Moreover, the more universally basic values are formulated, the less disagreement they will meet and consequently the less variance is left as an explanatory factor. This is exactly the phenomenon we observed in the various country studies. Assuming a causal relationship between basic values related to man-nature interaction and environmental behavior is not a strong case. Is the study of values and environmental engagement therefore obsolete? Certainly not. We must simply look more closely at the specific values that relate to the core of consumer behavior and are less distant than abstract "universal" values regarding man-nature relationships. As indicated earlier, these values underlie the mental software that consumers apply in making decisions. Proximate values such as those related to comfort, health, safety, efficiency, goal-attainment, social distinction, and responsibility are more likely to impact pro-environmental consumer behavior than are "distant" values involving the relationship between man and nature. Future comparative research should wisely concentrate on whether the hierarchy of proximate values in consumers' environmental behavior does indeed make the difference and, if so, whether this hierarchy is cross-culturally stable.

A unique feature of the GOES project is the simultaneous cross-national study of environmental beliefs of both general publics and environmental decision makers. One assumption of this combined perspective is that sustainable policy advancement will succeed only if environmental decision makers correctly understand the public's environmental beliefs and policy preferences. Under- or overestimation of public's environmental concern and support for environmental policy measures will seriously hamper policymakers in choosing the optimal mix of policy instruments that meets with public understanding and support. Of course the political domain has an autonomy and responsibility of its own, but misjudging the public "will" evokes reactance effects that negatively affects policy acceptance. We found some remarkable and systematic cross-national biases in decision makers' competence of estimating the general public's environmental beliefs and policy support.

These biases, interestingly, are related to issues at the core of the sustainability debate. We observed in the GOES Mass Public Survey that in all countries included, citizens both in developed and developing countries prioritize ecological concerns over economic interests. In our parallel survey of decision makers we found that they, though, have a markedly different estimate, wrongly predicting that citizens en masse choose economic growth in this basic trade-off. Thus, decision makers clearly underestimate public readiness to support ecological stakes in balancing environmental

and economic interests. Likewise, they underestimate public willingness to take individual responsibility in fighting environmental deterioration. Moreover, their assessment of public knowledge of environmental "global" problems is much more negative then the public's self-evaluation in this respect. This inaccuracy in understanding the public's "green profile" as found in the Netherlands, Japan, and Brazil—very different societies in terms of culture, politics, development, and environmental features—is troublesome as these issues do not relate to marginal matters but touch the very nucleus of the present discourse on sustainable development. It seems as if the average decision-maker has a stereotyped, somewhat skeptical, image of the environmental stands of the general public: The public is generally not well informed about environmental issues (particularly not on global problems) prefers economic interests over ecological concerns, is not really committed to environmental values, and is unwilling to accept environmental policy measures that may negatively impact its lifestyle. In this sense, stereotyped beliefs about the public's environmental attitudes and behavior seem almost culturally invariant. The story is even worse than stereotyped beliefs. Many decision makers' expressions of these beliefs were hardly free of a cynical undertone. Such an attitude, of course, is detrimental to environmental decision makers' policy choices made to change the public mind. Cynicism is an ill advisor in designing policies that aim to prompt pro-environmental citizen behavior, since citizens will accept only policies they perceive as just and legitimate combined with high trust in policymakers themselves. Particularly when faced with complex, abstract, and long-term global problems, emancipated citizens demand transparent explanations, free of skepticism, of how these problems are related to consumer lifestyles and macro-economic choices. The path towards a sustainable society requires a milieu of environmental policymakers that can forcefully, convincingly, and faithfully plea for lifestyle changes. Besides, populations in developed countries are highly educated and will simply challenge ambivalent sustainable policy explanations by decision makers. The irony, or maybe tragedy, is that substantial segments of the population share decision makers' concerns about the seriousness of global environmental problems, and by questioning the sincerity or "depth" of the public's environmental views, decision makers may clearly miss the point. Public support for their concerns is greater than decision makers themselves perceive. As such, underestimating public support is simply a missed opportunity.

But fortunately there is also a more positive side to the way decision makers view the world in general and man-nature relationships in particular. In all countries that conducted the GOES Decision makers' Survey it was observed that leading national environmental policymakers and opinion leaders are consistently more supportive of postmaterialist values than is the general public. Since postmaterialism is positively correlated with pro-environmentalism (INGLEHART 1995; INGLEHART & RABIÉR 1986), the implication is that the various actors in the national environmental arenas share an above-average interest in ecological concerns even when representing social and economic domains where this is less 'usance'. Broad interest clearly is an advantage when designing sustainable policies that require consensual democratic input.

It seems, on balance, that environmental decision makers must do a better job. They are intensively engaged in negotiating international treaties on global problems and flying from one conference to another, to the best of their diplomatic skills. When "results" are recorded, such as at the 1997 Kyoto conference or at the 2001 Bonn aftermath conference, the international environmental diplomatic world sighs from relief, and rightfully so. For the interested average citizen, however, these treaties are a beginning and not an end. The emancipated citizen wants to know what it means for his or her lifestyle if it is agreed that the nation's carbon emissions must be reduced by, say, 15 percent in ten years. Here is where environmental policy comes in—not "only" by designing implementation policies but also by explaining the logic of emission reduction, the rationality of choices, and the calculus of expectations vis-à-vis consumer lifestyle changes. Somehow the "grand" environmental policy narratives of decision makers should be linked to the "petite" everyday narratives and struggles of the ordinary citizen. It appears that a level discrepancy exists between the environmental policy agenda and the public's agenda. Environmental policymakers increasingly frame environmental problems as global and complex issues, whereas the individual consumer struggles to assess the relevance of such framing for everyday life considerations (Ester and Vinken 2000). It seems, in conclusion, that environmental decision makers at the start of the 21st century must re-invest in their dialogue with the citizen: by explaining policy goals, by explicating and facilitating consumer behavior changes, and by giving feedback on policy results. Dialogue, explanation, explication, facilitation, and feedback are the crucial factors for sustainable policy to be successful and acceptable.

CONCLUSIONS

The cross-cultural GOES project has provided us with unique cross-national insights in how mass publics and decision makers in both developed and developing countries frame environmental problems and solutions. In addition, the project has shown how leading environmental decision makers and opinion leaders assess the environmental beliefs and attitudes of the public. In order to further advance the academic and policy significance of this study, it seems important to not only repeat the study periodically but also to expand the number of countries and cultures involved. A larger number of countries varying in highly relevant features such as economic development, physical and geographical condition, socio-political constellation, environmental policy magnitude, and environmental leadership, would surely enhance our understanding of factors affecting sustainable development. There is also an intrinsic cross-cultural legitimation to such a broadening. The way world citizens and environmental decision makers frame environmental problems and solutions is definitely rooted in different cultural assumptions on man-nature relationships, in different cultural traditions of environmental stewardship, and in different cultural perceptions of the environmental heritage. The salience of the cultural factor in cross-national environmental research is here to stay and merits a dominant position on both the research and policy agenda.

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NOTES

1. See SIMÕES (2001) for a detailed analysis of the state-of-the-art contribution of survey research to the description and explanation of environmental concern.
2. One could provide different sets of examples. Major risks in the Netherlands, as well as other postindustrial countries, are connected to the distribution of risks in the domains of labor, social security, (health) care, and leisure due to the "graying" of society—risks that will put severe pressure on future generations (see for more details ESTER & VINKEN, 2000).
3. INGLEHART combines Maslowian theory of the human need hierarchy, Mannheimian theory of generational socialization, Rokeach's value theory, and economic scarcity theories. See also Chapter 4.
4. See VAN DEN BROEK (1996) for an extensive report on the value effects of generational replacement in the Netherlands.
5. Use is made of data from the so-called Health of the Planet Survey conducted in 24 countries that strongly vary in economic development rates (DUNLAP, GALLUP & GALLUP, 1993a).
6. The New Ecological Paradigm made history as an environmental attitude measurement scale and is now one of the most widely used measures tapping negative consequences of human interactions with the environment (cf. STERN, DIETZ & GUAGNANO, 1995; STERN, DIETZ, KALOF & GUAGNANO, 1995).
7. SCHWARTZ analyzed 44 countries' value positions to define these clusters. The value inventory of Schwartz, containing dozens of terminal and instrumental values, was originally developed by ROKEACH (1973) and has encountered many other extensions. One of the more serious competitors of the Schwartz cluster definition and analyses of country differences based on the Rockeach inventory is HOFSTEDE (1980), who identified several dimensions (including femininity/masculinity, individualization, power distance, and risk avoidance) on which countries strongly diverge.
8. See for details about objectives, organization, design, data, and results of the Global Environmental Survey our Web site: http//www.nies.go.jp/shakai/goes/index.htm.
9. For detailed information on the methodology and sampling procedures see chapter 2 "Building on the Environmental Research Legacy. The construction of GOES" in ESTER, VINKEN, SIMÕES & AOYAGI-USUI, 2003.
10. The full analysis of the data from both GOES Modules was published in the book Culture and Sustainability: a Cross-national Study of Cultural Diversity and Environmental Priorities among Mass Publics and Decision Makers by ESTER, VINKEN, SIMÕES & AOYAGI-USUI, 2003. The book can be purchased through the publisher's web page: http://www.rozenbergps.com/

ABSTRACTS/RESUMOS

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CULTURAL CHANGE AND ENVIRONMENTALISM: A CROSS-NATIONAL APPROACH OF MASS PUBLICS AND DECISION MAKERS

Abstract

The main focus of this study – the Global Environmental Survey (GOES) - is the impact of cultural influences on environmental attitudes. GOES examines the cultural impact from a basic cross-national perspective, investigating the impact of cultural change and value shifts on environmental concern, attitudes, and behavior in both Western and non-Western societies. This study provides cross-national insights in how mass publics and decision makers in both developed and developing countries frame environmental problems and solutions. In addition, the project has shown how leading environmental decision makers and opinion leaders assess the environmental beliefs and attitudes of the public.

Apparently, citizens are not yet ready to translate pro-environmental concerns into acceptance of far-reaching environmental policy measures. Citizens in both developed and developing countries seem to prefer voluntary lifestyle changes. Moving from environmental concern via policy support to actual (reported) environmental behavior, we can conclude that persistent pro-environmental behavior does not describe citizens' environmental involvement and commitment. Our data indicate that environmentally relevant behaviors (e.g., transportation, energy use, recycling, household purchases, political activism) do not form a consistent and coherent pattern. Practice of one type of ecologically conscious behavior does not predict engagement in another. It is not that people reserve a distinctive spot in their mental software for judging the environmental impact of habitual behaviors. Their mental mapping probably consists of manifold decisional heuristics, including comfort, health, safety, price, efficiency, effectiveness, and social responsibility, which are likely to be hierarchically ordered and in competition with environmental heuristics. A focus on specific behaviors, though, reveals that citizens may be deeply involved in "green" behavior. This is related in part to differences in opportunity structures, social situation

and, arguably, cultural differences in exposure to green ideas. The policy lesson from this is not to prompt "general" environmentally friendly consumer behavior, but to promote single citizen actions having positive environmental impacts and, certainly, to create appropriate opportunity structures.

In addition to the general national sample GOES study, an additional decision makers' module addressed the following questions, among others: Is there a systematic bias in environmental decision makers' estimates of environmental attitudes and environmental policy preferences of the general public? How do decision makers value a number of policies that are direct implementations of international environmental treaties, and how do they judge their own national performance in this respect?

The new module enabled us to study differences between environmental decision makers and general public attitudes and policy preferences in the environmental policy arena, and we did find some remarkable and systematic cross-national biases in decision makers' competence of estimating the general public's environmental beliefs and policy support.

These biases, interestingly, are related to issues at the core of the sustainability debate.

Keywords: environmental attitudes and behavior, values, culture.

MUDANÇA CULTURAL E AMBIENTALISMO: UMA ABORDAGEM TRANSNACIONAL SOBRE OPINIÃO PÚBLICA E AGENTES DECISÓRIOS

Resumo

O foco principal deste estudo – o Global Environmental Survey (GOES) - é o impacto das influências culturais sobre as atitudes ambientais. O GOES examina os impactos culturais a partir de uma perspectiva comparativa internacional, investigando as implicações da mudança cultural e de valores sobre a percepção, atitudes e comportamentos ambientais em sociedades ocidentais e não-ocidentais. Este estudo lança luzes no entendimento de como as populações e os *"decision makers"*, tanto em sociedades desenvolvidas quanto em desenvolvimento, concebem os problemas ambientais e suas possíveis soluções. Adicionalmente, o estudo mostra como os *"decision makers"* ambientais e formadores de opinião avaliam as atitudes e comportamentos ambientais da população em geral.

Aparentemente, as pessoas ainda não estão prontas para traduzir suas preocupações com o meio ambiente em apoio a políticas ambientais de maior alcance. Tanto em países desenvolvidos quanto naqueles em desenvolvimento, os cidadão parecem preferir mudanças voluntárias em seus modos de vida. Indo além da preocupação com o meio ambiente via apoio a políticas públicas para a adoção de comportamentos ambientais, nós podemos concluir que um comportamento pró-ambiental consistente não descreve o envolvimento e compromissos ambientais das pessoas. Nossos dados indicam que comportamentos ambientalmente relevantes (por

exemplo: transporte, uso de energia, reciclagem, consumo doméstico, ativismo politico) não formam um padrão consistente e coerente. A prática de um tipo de comportamento ecologicamente consciente não prediz o engajamento em outro. O mapeamento mental dos indivíduos consiste de uma heurística de decisão multifacetada, incluindo conforto, saúde, segurança, preço, eficiência, eficiência, e responsibilidaded social, que provavelmente estão hierarquicamente ordenados e em competição com a heurística ambiental. O foco em comportamentos específicos, no entanto, revela que os cidadãos podem estar ativamente envolvidos com o "comportamento verde". Isto está relacionado em parte com diferenças em estruturas de oportunidades, situação social, e, possívelmente, a diferenças culturais quanto à exposição às "idéias verdes". A implicação disto para a formulação de políticas ambientais é que não deveríamos promover o consumo pro-ambiental de uma maneira "geral", mas promover ações específicas que tenham impactos positivos e, certamente, criar estruturas de oportunidades.

Em adição aos surveys com amostras das populações nacionais, um modulo suplementar com "decision makers" levantou as seguintes questões, entre outras: Existe uma distorção sistemática nas estimativas que os "decision makers" fazem das attitudes ambientais e preferências de políticas públicas entre o público em geral? Como os "decision makers" avaliam medidas de implementação de tratados ambientais internacionais, e como êles avaliam seus respectivos governos nacionais em relação à esta questão?

O novo módulo nos permitiu estudar as diferenças entre os "decision makers" ambientais e a população em relação às suas attitudes e preferências políticas e nós de fato encontramos distorções marcantes e sistemáticas na competência dos "decision makers" em estimar as crenças ambientais e o apoio a políticas públicas entre o público em geral. Estas distorções, curiosamente, estão relacionadas a questões centrais ao debate sobre sustentabilidade.

Palavras-chave: atitudes e comportamento ambiental, valores, cultura.