

BEING GREEN IN BC:

Public Attitudes Towards Environmental Issues

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INTRODUCTION

DURING THE PAST FIVE YEARS, environmental issues have been among the hottest topics in British Columbia.¹ Opposition to logging in Clayoquot Sound led to the arrest of over 800 protesters, and charges were laid against one of their most prominent supporters, a member of parliament. The provincial legislature was invaded as one of a number of demonstrations both for and against government environmental policy got out of hand. The head of the government's Commission on Resources and the Environment (CORE) was burned in effigy. Plans by Alcan to expand power production from the Nechako River and by Geddes Resources to mine in the Tatshenshini wilderness area were scuttled by the province, leading to threats of multi-million-dollar lawsuits. More recently, the province's environment minister announced plans to bring California-style vehicle emission standards to British Columbia, much to the annoyance of the automobile industry.

In this article we examine the state of public opinion on the environment in British Columbia, using a province-wide survey conducted in June and July 1995.² We focus on three major questions:

¹ Kathryn Harrison, "Environmental Protection in British Columbia: Postmaterial Values, Organized Interests and Party Politics," and George Hoberg, "The Politics of Sustainability: Forest Policy in British Columbia," in R.K. Carty, ed., *Politics, Policy, and Government in British Columbia* (Vancouver: UBC Press, 1996).

² The survey was conducted by Campbell, Goodell, Traynor Consultants Limited of Vancouver under the supervision of Donald E. Blake and Neil Guppy. A total of 1,652 telephone interviews were completed from the general population, age eighteen or over, using standard random sampling techniques. These were supplemented by an additional 100 interviews from Mandarin- and Cantonese-speaking households and 101 from Punjabi-speaking households in the Lower Mainland, along with 101 interviews from the Abbotsford area. The results reported are from the population sample, without the supplemental interviews. The demographic profile in the sample compares favourably with census data.

The survey is a component of the Fraser Basin Eco-Research Study at the University of British Columbia. Funding from the Social Sciences and Humanities Research Council,

1. How concerned are British Columbians about the environment?
2. How “green” is their behaviour?
3. How can we account for differences in levels of concern?

The first question was posed mainly to produce a benchmark by which to assess the potential significance of public opinion on the environment for public policy and political action. At a minimum we wish to find out how environmental concerns rate among other concerns that individuals have about societal problems. Other studies of public opinion have shown that public concern about the environment waxes and wanes over time. In Canada, for example, concern appears to have peaked in the late 1980s.³ Given the competition for space on government agendas, changes in the salience of environmental issues will undoubtedly affect the willingness of politicians to deal with them.

In addition, we want to know both what people have in mind when they say they are concerned about the environment and how strongly they feel about it. Some people may be concerned almost exclusively with the quality of the environment in their own neighbourhoods — air and water quality, for example. Others may focus more on global problems, such as the greenhouse effect and ozone depletion. The implications for public policy of differences in the focus of concern are readily apparent. It is easier to mobilize people in response to environmental problems that have immediate local impact, where the targets and remedies are easily identified, than it is to mobilize them in response to problems that have more distant or diffuse effects or that appear more intractable. In other words, we believe that environmental concern is multidimensional in character, with differing implications for the likelihood and focus of political action, depending upon which dimension is involved.

Environmental action is also multidimensional. “Green” behaviour can include anything from recycling newspapers to protesting clearcuts.⁴ Once again, actions of this sort engage different people

the Medical Research Council, and the National Science and Engineering Research Council is gratefully acknowledged. Arlene Strom and Peter Urmetzer provided invaluable assistance in developing the survey instrument.

³ See Kathryn Harrison, *Passing the Buck: Federalism and Environmental Policy* (Vancouver: UBC Press, 1996).

⁴ We use the adjective “green” as a shorthand expression to denote beliefs or actions that are claimed by their proponents to be necessary for the protection or rehabilitation of the environment. In so doing we recognize that there are, among those concerned with the environment, debates about how environmentally friendly certain practices, such as recycling or selective logging, really are.

for different reasons. In this article we attempt to capture these distinctions by measuring action in two ways. One way is through an examination of “green consumerism,” which measures the frequency with which individuals engage in activities of the “reduce, reuse, recycle” variety. The second is more explicitly political and focuses on activities aimed at influencing public opinion and/or public policy.

Finally, we address the “why” question. Why do the focus and intensity of environmental concern vary? Are variations linked more closely to social structure differences (such as income levels and education) or to value conflicts (such as the clash between neo-conservatism and liberalism)? Much has been written on sources of green attitudes, although little has been written about this issue in Canada.⁵ We know rather less about green behaviour, except with regards to voting,⁶ although Witherspoon and Martin⁷ and Nevitte and Kanji⁸ also explore environmental concerns using measures similar to those we employ in this article. While our research does not explicitly challenge their conclusions, it does demonstrate the importance of distinguishing among different forms of environmental action and concern. It also identifies a crucial explanatory role for political ideology that has hitherto been largely ignored.

⁵ Robyn Eckersley, “Green Politics and the New Class: Selfishness or Virtue?” *Political Studies* 37 (1989): 205-23; Robert Rohrschneider, “The Roots of Public Opinion toward New Social Movements: An Empirical Test of Competing Explanations,” *American Journal of Political Science* 34 (1990): 1-30; Ronald Inglehart, *Cultural Shift in Advanced Industrial Society* (Princeton: Princeton University Press, 1990); and Robert Emmett Jones and Riley E. Dunlap, “The Social Bases of Environmental Concern: Have They Changed Over Time?” *Rural Sociology* 57 (1992): 28-47.

⁶ Herman Bakvis and Neil Nevitte, “The Greening of the Canadian Electorate: Environmentalism, Ideology, and Partisanship,” in Robert Boardman, ed., *Canadian Environmental Policy: Ecosystems, Politics and Process* (Toronto: Oxford University Press, 1992); Robert Rohrschneider, “New Party versus Old Left Realignment: Environmental Attitudes, Party Policies, and Partisan Affiliations in Four West European Countries,” *Journal of Politics* 55 (1993): 682-701; Ian McAllister, “Dimensions of Environmentalism: Public Opinion, Political Activism and Party Support in Australia,” *Environmental Politics* 3 (1994): 22-42; and Clive Bean and Jonathan Kelley, “The Electoral Impact of New Politics Issues: The Environment in the 1990 Australian Federal Election,” *Comparative Politics* 27 (1995): 339-56.

⁷ Sharon Witherspoon and Jean Martin, “What Do We Mean by Green?” in Roger Jowell, et al., eds., *British Social Attitudes: 10th Report* (Aldershot: Dartmouth, 1993).

⁸ Neil Nevitte and Mebs Kanji, “Explaining Environmental Concern and Action in Canada,” *Applied Behavioral Science Review* 3 (1995): 85-102.

CONCERN ABOUT THE ENVIRONMENT

Environmental problems assume an important, but not the most prominent, place in the minds of British Columbians. At 18.1 per cent in our survey, the environment ranked second, behind unemployment (26.6 per cent), as "the most important problem facing British Columbians today."⁹ There is more consensus on the nature of environmental problems. As is shown in Table 1, they include the fairly esoteric (power line radiation at 0.1 per cent) and the sarcastic (environmentalists at 1.1 per cent), but pollution in various forms is uppermost in our minds. Motor vehicle exhaust (20.2 per cent) leads

TABLE 1

Environmental Concerns

motor vehicle exhaust	20.2%
logging practices	13.4%
ground water contamination	11.8%
air pollution	11.3%
pulp mill emissions	5.4%
loss of land/over development	4.2%
garbage pollution	3.3%
sewage system	3.0%
depletion of fishery	3.0%
lack of recycling	1.9%
pollution of oceans and lakes	1.8%
ignorance/apathy	1.6%
environmentalists	1.1%
protection of green space	1.0%
chemicals	0.9%
water shortage	0.8%
fires	0.5%
noise pollution	0.2%
floods/earthquakes	0.2%
power line radiation	0.1%
other	5.1%
none	5.3%

Note: Respondents were asked, "What, if any, is the most serious environmental problem facing your community today?" Percentages are based on 1,524 cases.

⁹ The question was prefaced with the statement, "First, I would like to start off by asking you about some general concerns you might have about political and economic issues in the province." However, as the introduction to the survey stated that it dealt with environmental issues, the figure for environmental problems may have been inflated somewhat.

the way, but a total of at least 56.8 per cent¹⁰ of the adult population of the province sees various forms of land, air, or water pollution as the most serious environmental problem facing our communities. Moreover, fully 60 per cent of British Columbians choose “protecting the environment” when they are offered the classic choice between jobs and the environment.¹¹

For a significant number of British Columbians environmental problems are of considerable importance. When asked to rate their concerns about the quality of the environment in their local areas on a scale from 1 (not concerned at all) to 7 (very concerned), 38.6 per cent chose one of the top two categories while only 7.7 per cent chose 1 or 2. However, the average score was 5.0, just one point above the algebraic mid-point of the scale. This was also the most common or modal response, selected by 29.5 per cent of those interviewed. In short, public opinion tilts in the concerned direction, but substantial numbers cluster near the middle of the dimension.

What about green behaviour? As noted above, we distinguish between two kinds of environmental behaviour: (1) individual activities with environmental implications but no specific political focus and (2) individual or collective activities aimed at influencing the behaviour of others in the political or corporate world. As might be expected, the two most frequently cited activities categorized as “green consumerism” (see Table 2) are also the least onerous and may actually produce financial dividends for the household: turning off the lights when leaving a room (83.8 per cent) and turning down the thermostat at night (82.7 per cent).¹² However, nearly as many people

¹⁰ This figure is the sum of motor vehicle exhaust, ground water contamination, air pollution, pulp mill emissions, garbage pollution, the sewage system, and the pollution of oceans and lakes. The total could be higher, depending on what people had in mind when they mentioned problems such as lack of recycling, water shortages, and chemicals.

¹¹ This is substantially less than the pro-environmental response in British Columbia to a similar question asked in the 1988 National Election Study. Ignoring those with no opinion, 83.6 per cent of BC respondents “mainly agreed” with the statement that “protecting the environment is more important than creating jobs.” See Bakvis and Nevitte, “Greening of the Canadian Electorate.” Our survey asked which of a given pair of policy goals, “reducing unemployment or protecting the environment,” was closer to the respondent’s own position. We are unable to tell whether the apparent decline is real or a result of differences in the wording of the question. Moreover, unlike Bakvis and Nevitte (who find significant differences in reactions to this tradeoff, depending on education, occupation, and gender), with one exception, using standard demographic control variables we found no significant differences in British Columbia. The exception is ethnic origin. Respondents from Asian backgrounds are significantly more likely to chose the “reduce unemployment” option than are people of other origins. Ethnic differences are explored more fully below.

¹² Robert M. Worcester reports a British study that shows that only 36 per cent of those who reduced fuel and electricity use cited environmental reasons for so doing. See his “Public

TABLE 2
Green Consumerism

ACTIVITY	FREQUENCY
turn off lights when leaving the room	83.8%
turn down thermostat at night	82.7%
recycle newspapers	81.2%
recycle tin cans	69.8%
compost fruit and vegetable waste	43.4%
use your own bags when shopping	26.7%
buy organic fruit and vegetables	19.7%
use public transportation	14.2%

Note: Respondents were asked how often a given activity occurred "in the household." Percentages are for the response "all or most of the time." The other response categories were "some of the time" and "never."

(81.2 per cent) claim that their household recycles newspapers "all or most of the time." Newspaper recycling is facilitated by the availability of municipal blue-box programs and other collection schemes but has costs attached in terms of time and, for some, transportation.

Perhaps the most costly activity, given the price disadvantage compared to purchasing comparable items that may have been sprayed, the purchase of organic fruit and vegetables is also one of the least frequent, at 19.7 per cent.¹³ The activity with the most benefit to the environment, use of public transit, was the least frequent of all, at 14.2 per cent.¹⁴

Variations in the frequency of various kinds of environmental activism (see Table 3) seem mainly to be a function of a combination of the degree of individual or collective action involved and the amount of time required. The most common activities — donating money to environmental causes, signing petitions, and boycotting products — are essentially individual activities that take little time. Substantially fewer people have engaged in collective and time-

and Elite Attitudes to Environmental Issues," *International Journal of Public Opinion Research* 5 (1993): 323.

¹³ Of course, health rather than environmental reasons may be the primary motivation for the purchase of organic produce by some individuals.

¹⁴ Sharon Witherspoon and Jean Martin, "What Do We Mean by Green?" in Roger Jowell, et al., eds., *British Social Attitudes: 10th Report* (Aldershot: Dartmouth, 1993), also use a list of green consumer activities to develop a "green consumer" scale for a United Kingdom sample that has two items similar to our own. Their results suggest that the British are much less green than are British Columbians: only 32 per cent recycle bottles, tins, and newspapers, while only 8 per cent buy organically grown food.

TABLE 3
Green Activism

ACTIVITY	FREQUENCY
donated money to support an environmental cause	46.6%
signed a petition supporting a pro-environmental issue	44.4%
boycotted a product because of environmental concern	43.4%
worked to elect someone because of their views on the environment	24.3%
displayed a bumper sticker or pin supporting pro-environmental issue	19.1%
written a public official about environmental matters	16.6%
joined an environment group	12.7%
joined a protest or demonstration concerned with the environment	9.8%
phoned TV/radio talk show about environmental issues	7.7%
written a letter about environmental issues to newspapers	7.2%

Note: Respondents were asked if they had engaged in any of these activities "in the last year."

consuming actions such as protests, working in election campaigns, and joining environmental groups. The same is true of activities such as letter writing or telephoning talk shows, which, while individualistic, are also costly in terms of time.

Of course, concerns about the environment need not be restricted to one's local community. They include matters such as global warming, depletion of the ozone layer, destruction of animal and fish habitat, and contraction of tropical rain forests — none of which may have special or immediate significance for a given community in British Columbia. For some individuals, environmentalism has developed into a coherent belief system based on "recognition of the interconnectedness of all things."¹⁵ As Hay and Haward put it: "The impulse to defend the existential rights of wilderness in precedence over human-use rights has led to a spirited challenge to the most fundamental tenet of western civilization, the belief that rights are strictly human categories, and that no countervailing *principle* exists to bar humanity from behaving in any way it deems fit towards the non-human world."¹⁶

¹⁵ Mary Ann E. Steger and Stephanie L. Witt, "Gender Differences in Environmental Orientations: A Comparison of Publics and Activists in Canada and the US," *Western Political Quarterly* 42 (1989): 629.

¹⁶ P.R. Hay and M.G. Haward, "Comparative Green Politics: Beyond the European Context?" *Political Studies* 36 (1988): 438, emphasis in the original.

In order to tap these concerns, our survey asked for reactions to a series of statements based on a set developed by Dunlap and Van Liere,¹⁷ which they call the New Environmental Paradigm (NEP). The percentage choosing the most “pro-environment” response is shown in parentheses.

- When people interfere with nature it often produces disastrous consequences (47.5% *strongly agree*)
- The “ecological crisis” has been greatly exaggerated (30.3% *strongly disagree*)
- People must live in harmony with nature in order to survive (57.8% *strongly agree*)
- People are severely abusing the environment (41.3% *strongly agree*)
- We are approaching the limit to the number of people that the earth can support (34.4% *strongly agree*)
- Plants and animals exist primarily to be used by people (38.3% *strongly agree*)
- To maintain a healthy economy we will have to control industrial growth (25.2% *strongly agree*)
- People have the right to modify the natural environment to suit their needs (29.0% *strongly disagree*)
- People need not adapt to the environment because they can remake it to suit their needs (47.6% *strongly disagree*)
- There are limits to growth beyond which our industrialized society cannot expand (31.9% *strongly agree*)

For each statement, respondents were asked to chose a number between 1 (strongly agree) and 7 (strongly disagree). To measure “global concern” we averaged responses to all the questions (reversing direction of the scoring where necessary) to produce a scale ranging from 1 to 7, with higher scores associated with “greener” attitudes.¹⁸ The mean score is 5.3, again just above the algebraic mid-point, suggesting that public opinion is skewed somewhat towards the “green” side.

¹⁷ Riley E. Dunlap and Kent Van Liere, “The New Environmental Paradigm,” *Journal of Environmental Education* 9 (1978): 10-19.

¹⁸ These ten statements were included in a battery of public opinion items. Factor analysis revealed that they tapped the same underlying dimension justifying the creation of an additive scale. Technical details are available from the authors.

SOURCES OF ENVIRONMENTAL CONCERN

Following Inglehart¹⁹ and Dalton,²⁰ one might expect those with a higher education to be more concerned about the environment than those with a lower education. This expectation assumes that the adoption of green attitudes and, especially, the development of a consistent green belief system presupposes a knowledge base and a degree of sophistication that is likely to be associated with higher levels of education. Inglehart's work also leads us to expect to find greater concern about the environment among young people, particularly compared to those who came of age before the end of the Second World War. Generally speaking, those who grew up after the war give higher priority to such values as protecting the environment, having a say in governmental decisions, and freedom of speech than they do to such values as economic stability, law and order, and maintaining strong defence forces. This phenomenon has been shown to exist in all Western capitalist democracies. The explanation seems to be linked to the fact that younger age cohorts, having no direct experience of the Great Depression and the war that followed it, have come to take economic and military security for granted and, therefore, give higher priority to "post-material" values.²¹ A study analyzing US public opinion data from 1973 to 1990 also finds that age and education are the most consistent predictors of support for spending on the environment.²²

Gender differences in attitudes towards environmental issues have been found in a number of studies. Milbrath concludes that women are more concerned about the environment than are men,²³ a phenomenon that has been attributed to socialization differences²⁴ and biological differences associated with the nurturing and

¹⁹ Ronald Inglehart, *The Silent Revolution: Changing Values and Political Styles Among Western Publics* (Princeton: Princeton University Press, 1977), and *Cultural Shift in Advanced Industrial Society* (Princeton: Princeton University Press, 1990).

²⁰ Russell Dalton, *Citizen Politics in Western Democracies: Public Opinion and Political Parties in the United States, Great Britain, West Germany and France* (Chatham, NJ: Chatham, 1988).

²¹ While many studies have shown that post-materialist values are more common among the young, not all accept Inglehart's explanation for this phenomenon. See, for example, Eckersley, "Green Politics and the New Class."

²² Jones and Dunlap, "Social Bases of Environmental Concern," 39.

²³ Lester Milbrath, *Environmental Vanguard for a New Society* (Albany, NY: State University of New York Press, 1984).

²⁴ Lenore J. Weitzman, "Sex Role Socialization: A Focus on Women," in J. Freeman, ed., *Women: A Feminist Perspective* (Palo Alto, CA: Mayfield, 1984), and Eleanor Macoby and Carol Jacklin, *The Psychology of Sex Differences* (Stanford: Stanford University Press, 1974).

reproductive role of women.²⁵ Steger and Witt,²⁶ in their comparative study of attitudes towards acid rain, reach a similar conclusion regarding gender differences. They conclude that “women to a greater degree than men held beliefs that reflected a nurturing and protective attitude toward the environment, perceived higher risks from acid rain pollution, support more fully the beliefs of the New Environmental Paradigm, and were more likely to back a moratorium on acid rain-causing activities.”²⁷ In their study of change over time in the US, Jones and Dunlap find gender differences typically insignificant,²⁸ but when they do emerge, women are more environmentally concerned than are men. Nevitte and Kanji report a similar result for Canada.²⁹

Specific features of environmental problems in British Columbia led us to look for regional differences in levels of concern. As shown above, motor vehicle exhaust is perceived as the single most important environmental problem in the province. The highest levels of this form of pollution are found in the Lower Mainland region, from Hope to Vancouver. That fact, together with problems of river pollution and ground water contamination in the region, suggest that Lower Mainland residents may have higher levels of concern than do those in other regions, particularly those in less populated areas (such as the Kootenays and the North).

The centrality of environmental issues with regard to the province’s political agenda also led us to expect partisan differences in attitudes toward environmental issues. The New Democratic Party (NDP) government under Mike Harcourt made environmental preservation a central feature of its legislative program, substantially increasing the area of the province devoted to parks.³⁰ It also devoted many hours to meetings with stakeholders in the province’s forestry (including loggers, timber and paper companies, and environmentalists) in an attempt to work out compromises on land use.³¹ BC also has a small but dedicated Green party. On the other hand, environmental concerns are not a central feature of the policy

²⁵ Evelyn Fox Keller, “Women, Science and Popular Mythology,” and Ynestra King, “Toward an Ecological Feminism and a Feminist Ecology,” in J. Rothschild, ed., *Machina Ex Dea: Feminist Perspectives on Technology* (Elmsford, NY: Pergamon, 1983).

²⁶ Steger and Witt, “Gender Differences in Environmental Orientations.”

²⁷ *Ibid.*, 646.

²⁸ Jones and Dunlap, “Social Bases of Environmental Concern,” 38.

²⁹ Nevitte and Kanji, “Explaining Environmental Concern,” 96.

³⁰ Harrison, “Environmental Protection.”

³¹ Hoberg “Politics of Sustainability.”

agendas presented by the provincial Liberal party and the BC Reform party.³² In fact, Reform, much of whose support comes from resource-extracting areas of the province, has been highly critical of what it sees as the NDP's lack of concern for the plight of people in communities that rely on the resource economy, as more and more territory is declared out of bounds for mining and logging.

Table 4 presents mean scores on the two dimensions of green attitudes, "local concern" and "global concern," as measured by scores on the environmental paradigm scale, broken down according to these demographic and partisan characteristics. As expected, those with the highest educational qualifications do indeed have higher scores on both dimensions. However, the differences are small and, in the case of local concern, rather ambiguous, given that the group with the middle level of education had the lowest average score. Gender, apparently, makes a greater difference. On average, women are substantially greener than are men, whether we consider concerns about environmental problems in the immediate community or the broader set of concerns captured by the NEP scale.

Age also makes a difference, but not in the manner we anticipated. The youngest respondents score higher than do the oldest on both measures; but the greenest people, especially on the local concern dimension, are found in the middle of the age grouping. In retrospect, this is not surprising. People in this category are more likely to have become established in a community and to be in the process of raising children. For them, the quality of the local environment would be particularly salient. A similar pattern has also been observed in the United Kingdom.³³ NEP scores exhibit less of a curvilinear pattern with age. However, those over the age of sixty-five are still significantly less green than are those in younger age cohorts.

Rather surprisingly, region makes little difference to scores on either dimension. As expected, the highest average scores on the local concern dimension are found in the Lower Mainland, but, on the whole, regional differences are not statistically significant. Scores on the global dimension vary even less by region. We return to the question of regional differences below.

Understandably, given the exceptionally low level of support for the Green party in provincial elections, only a handful (twenty-six) of its supporters turned up in our sample. However, even taking

³² Harrison, "Environmental Politics and Policy."

³³ Witherspoon and Martin, "What Do We Mean by Green?" 13.

TABLE 4
*Environmental Concern by Background Characteristics:
 Bivariate Analysis*

	ENVIRONMENTAL CONCERN	
	LOCAL CONCERN	GLOBAL CONCERN
<i>Education*</i>		
Less than Secondary	5.0	5.1
Completed Secondary	4.8	5.3
Some Post-Secondary	5.0	5.3
<i>Gender*</i>		
Male	4.8	5.1
Female	5.2	5.4
<i>Age*</i>		
18-25	4.9	5.3
26-35	5.0	5.3
36-45	5.2	5.4
46-55	5.0	5.4
56-65	4.9	5.2
over 65	4.7	5.0
<i>Region</i>		
Lower Mainland	5.1	5.3
Vancouver Island	4.9	5.3
Okanagan	4.7	5.2
Kootenays	4.9	5.3
North	5.0	5.1
<i>Vote Intention*</i>		
New Democrat	5.2	5.5
Liberal	4.9	5.2
BC Reform	4.7	5.1
Green	5.9	5.9
<i>Sample Average</i>	5.0	5.3
<i>Number of cases</i>	1,640	1,425

Note: Degree of Local Concern is based on responses to the question: "On a scale from 1 to 7 could you please tell me how concerned you are about the quality of the environment in your local area?" A score of 1 means "not concerned at all," a score of 7 means "very concerned." The Global Concern score is an average of responses to ten questions dealing with other environmental issues (known as the New Environmental Paradigm). Scores run from 1 to 7, with higher scores indicative of more concern. Asterisks indicate a difference of means significant at the 0.05 level.

TABLE 5
*Environmental Concern by Background Characteristics:
 Bivariate Analysis*

	ENVIRONMENTAL CONCERN	
	LOCAL CONCERN	GLOBAL CONCERN
<i>Independent Variable</i>		
Male	-0.33	-0.26
Middle Aged	0.15	0.11
No religion	-	0.20
Asian origin	-	-0.50
Lower Mainland resident	0.20	-
NDP voter	0.23	0.28
Green voter	0.99	0.66
Constant	4.94	5.26
<i>R-squared</i>	0.02	0.07
<i>Number of cases</i>	1,640	1,425

Note: Table entries are regression coefficients. Coefficients with positive signs signify higher average scores on a given green attitude dimension. All coefficients are significant at the 0.05 level. The independent variables are all dummy variables. They measure differences in average scores between those in the category given in the table and the reference category. The reference categories are, for age, those 35 or younger and 56 or older; for ethnic origin, those of European or other origin; for religion, those with a religious affiliation; and, for region, those residing outside the Lower Mainland. For partisanship it includes supporters of other parties and those with no current voting intention.

sampling error into account, members of the Green party are clearly the greenest British Columbians, with an average score of 5.9 on both dimensions. Next are supporters of the NDP. Liberal voters score close to the provincial average, but BC Reform voters are significantly less green than is the average voter. In short, partisan differences are just what we thought they would be.

Multivariate regression analysis provides a more precise measurement of the impact of a given characteristic on attitudes towards environmental issues and allows us to control for several independent variables simultaneously. Table 5 presents the results. Coefficients with positive signs identify variables associated with higher levels of concern; those with negative signs identify lower concern. In the case of local concern, the results mainly confirm the conclusions reached on the basis of the bivariate analysis presented

in Table 4. However, after an adjustment for demographic and partisan differences across regions, Lower Mainland residents exhibit the attitudinal pattern we expected: on average they have higher levels of concern about environmental problems in their communities than do residents in other regions.

For generalized environmental concerns captured by NEP scores, the pattern also confirms what we found in Table 4. Males are less green than are females. The middle-aged are more green than are younger or older people, and supporters of the NDP and the Greens have higher NEP scores than do supporters of other parties or those with no current vote intention.

However, the table also shows that two other factors have significant effects on NEP scores — the absence of a religious affiliation and Asian ethnic origin. On average, when other characteristics are taken into account, those with no religious affiliation score 0.2 points higher on the NEP scale than do those with formal religious ties, whereas those from Asian backgrounds score 0.5 points lower than do British Columbians with other, principally European, ethnic origins.

It is tempting to conclude that, for some, the environmentalist philosophy captured by the NEP serves as a substitute for traditional religious beliefs. On the other hand, there is little in the environmentalist creed (as measured here) that, on the face of it, should be incompatible with the tenets of mainstream religions. We suspect we have tapped an aspect of a more general phenomenon; that is, relatively greater support of the non-religious for a number of positions associated with “new politics,” including opposition to nuclear power and support for feminism. Value differences may also account for the fact that British Columbians from Asian backgrounds have significantly lower levels of environmental concern than do other residents of the province. The two largest components of the Asian origin group are those of Chinese and East Indian ancestry. Despite the fact that they come from different cultural backgrounds, there is no statistically significant difference between them with regard to levels of environmental concern.

Previous analysis has shown that those of Asian ethnic origin are significantly less likely to give high priority to “post-materialist” values, including environmentalism.³⁴ Nevertheless, as we show

³⁴ Donald E. Blake, “Value Conflicts in Lotus Land: British Columbia Political Culture,” in R.K. Carty, ed., *Politics, Policy, and Government in British Columbia* (Vancouver: UBC Press, 1996).

below, when “green behaviour” is analyzed, people from Asian backgrounds remain distinct even when post-materialist differences are taken into account. These differences are intriguing, but further examination is beyond the scope of this analysis.

Table 5 conveys another message as well. The low values for *r*-squared, which measures the proportion of the total variance in environmental concerns accounted for by the set of independent variables, indicate that relatively little explanatory power is provided by demographic and partisanship variables — 2 per cent for local concern and 7 per cent for NEP scores. Evidently, environmental concerns, whether local or global, are widely diffused across the population. Nevertheless, as noted above, there are variations in the intensity of these concerns that are worth exploring further.

We know from previous research that environmental concerns are greater among those who hold post-materialist values. Inglehart’s recent study of survey data from forty-three countries (including Canada) containing 70 per cent of the world’s population finds that “people with ‘Post-materialist’ values — emphasizing self-expression and the quality of life — are much more apt to give high priority to protecting the environment.”³⁵ Hence, we would expect post-materialists in British Columbia to express greater concern about the environment, locally as well as globally, than do those with more materialist concerns.

Moreover, as is dramatically illustrated by the US political scene, the regulatory regime erected in the name of environmental protection has attracted the ire of ideological conservatives.³⁶ They are generally opposed to government regulation and state intrusiveness and, in particular, object to the costs of compliance with environmental regulations that they allege undermine the competitiveness of US business. The clash between Left and Right also plays a prominent role in BC politics,³⁷ so it would not be surprising to see a similar link between ideology and concerns about the environment.

Finally, the ethos of the environmental movement, which stresses individual responsibility and direct action, invokes populist values that have always been a central feature of BC political culture.³⁸ Of course, another aspect of populism in North America is hostility to

³⁵ Ronald Inglehart, “Public Support for Environmental Protection: Objective Problems and Subjective Values in 43 Societies,” *PS: Political Science and Politics*, March 1995, 57.

³⁶ Here we disagree with Lester Milbrath, who argues that “the left-right argument is between socialists and capitalists but has little relevance for environmental problems.” See his *Environmentalists*, 88.

³⁷ *Ibid.*

government regulation or “red tape,” and the demand for stricter government regulation is one of the central components of the environmentalist creed.³⁹ However, our measures of environmental concern are silent on the question of what should be done about environmental problems. Moreover, increasing numbers of Canadians — nearly 50 per cent of respondents in our survey — believe individuals rather than government or industry have primary responsibility for protecting the environment. Thus, on the whole, we would expect populists to be more concerned about the environment, especially at the local level, than non-populists.

Details of the construction of post-materialism, neo-conservatism, and populism scales are provided in the Appendix. Table 6 shows what happens when these attitudinal measures are included as predictors of environmental concerns.⁴⁰ Again, a plus sign for a coefficient indicates that the variable is associated with greater concern; a minus sign indicates less concern. Three background variables — gender, religion, and ethnic origin — play the same role as they did in Table 5. Males and people of Asian origin are less concerned about the environment than are females and those from other ethnic backgrounds. Those with no religious affiliation are more concerned than are those with such an affiliation. However, with political values controlled, vote intention and region are no longer statistically significant. The result for vote intention is not surprising, since position on the Left/Right spectrum has a powerful effect on partisanship in British Columbia.⁴¹ It turns out that residents of the Lower Mainland are more liberal, on average, than are those living in other regions. Hence, including neo-conservatism in the equation overwhelms the apparent regional effect.

The three measures of political values — populism, neo-conservatism, and post-materialism — all have the expected effects. Populists and post-materialists are significantly more concerned about the environment, both locally and globally, than are non-populists

³⁸ See Donald E. Blake, *Two Political Worlds: Parties and Voting in British Columbia* (Vancouver: UBC Press, 1985).

³⁹ In fact, as described in the Appendix, our measure of populism includes hostility to government regulation as one of its components.

⁴⁰ In addition to the independent variables shown in the table, we tested income and education, a measure of knowledge about environmental issues, and personal financial situation. None was statistically significant.

⁴¹ Donald E. Blake, “The Politics of Polarization: Parties and Elections in British Columbia,” in R.K. Carty, ed., *Politics, Policy, and Government in British Columbia* (Vancouver: UBC Press, 1996).

TABLE 6
*Environmental Concerns by
 Background Characteristics and Political Values*

	ENVIRONMENTAL CONCERN	
	LOCAL CONCERN	GLOBAL CONCERN
<i>Background Characteristics</i>		
Male	-0.24	-0.22
Middle Aged	0.19	-
No religion	-	0.14
Asian origin	-	-0.43
<i>Political Values</i>		
Populism	0.09	0.08
Neo-Conservatism	-0.21	-0.24
Post-Materialism	0.06	0.07
Constant	5.19	5.64
<i>R-squared</i>	<i>0.06</i>	<i>0.22</i>
<i>Number of cases</i>	<i>1,413</i>	<i>1,295</i>

Note: Table entries are regression coefficients. Coefficients with positive signs signify higher average scores on a given green concern dimension. All coefficients are significant at the 0.05 level. Populism, neo-conservatism, and post-materialism are attitude scales constructed by combining responses to separate questions. See also notes to Table 5.

and materialists. Conversely, neo-conservatives are significantly less concerned than are those located closer to the Left of the ideological spectrum. Somewhat surprisingly, Left/Right position seems to have a greater effect on environmental concerns than do either of the other value measures. A one point difference on the neo-conservatist scale is associated with a difference of 0.21 on the measure of local concern and 0.24 on global concern compared to differences of less than 0.10 in the case of both populist and post-materialism scales. The differences should not be over-emphasized, since all three value patterns have independent effects, but the results serve to remind us of the continuing role of ideology in organizing the opinions of British Columbians.

However, as is indicated by the difference in the magnitude of *r*-squared (a measure of the overall explanatory power of the variables listed in the left-hand column of the table), values have a stronger link to global concerns than to local ones. The proportion of the variance explained is 22 per cent in the case of global concerns but

only 6 per cent in the case of local matters. The different impact of post-materialist values is particularly striking. When the variables are standardized to take account of differences in the way they have been measured and differences in the actual range of values they exhibit, the resulting beta coefficient for post-materialism is only 0.09 for local concerns compared to 0.19 for global concerns.⁴² These results suggest that local concerns are more context-driven (i.e., based on actual experience of environmental degradation) than are global ones.

CONCLUSION

Our analysis shows that BC public opinion on the environment is skewed, but not dramatically, in a “concerned” direction. However, British Columbians are, by and large, enthusiastic participants in simple energy-saving activities and recycling programs. In addition, nearly half have contributed money to environmental causes, signed pro-environment petitions, or boycotted products because of environmental concerns. Moreover, concern about the environment cuts across key social divisions: there is no statistical association between income levels or education levels and our two measures of environmental concern. The poorest and least educated residents are just as likely as are the richest and best educated residents to care about environmental problems at home or in the world generally.

Women are significantly more concerned than are men, a phenomenon that appears to be nearly universal in Western democratic societies. However, unlike the case elsewhere, the middle aged are more concerned than are older or younger people. Differences in the enthusiasm with which provincial political parties push an environmental agenda is also reflected in public opinion. NDP and Green party voters have higher levels of concern than do supporters of other parties.

Distinguishing between concern about the local environment and more abstract environmentalist beliefs revealed another explanatory factor with potential public policy significance. People from Asian ethnic backgrounds, while no different from other residents in terms of issues of local concern, are less likely to agree with the tenets of

⁴² Differences in the same direction, but less dramatic, also appear for neo-conservatism and populism. A similar result for post-materialism is reported by Ian McAllister for Australia, although his measures of local and global concerns differ from ours. See his “Dimensions of Environmentalism.”

the environmentalist creed captured by the New Environmental Paradigm, our measure of global concerns.

That said, on the whole, socio-economic and partisan differences explain rather little of the variation in opinion on either dimension of concern. However, when political values are taken into account — specifically, neo-conservatism, populism, and post-materialism — our ability to account for differences in levels of concern increases dramatically. This is especially so for global concerns. The weaker connection between values and local concerns indicates, we believe, that the objective condition of the local environment is itself a powerful determinant of local concern. It is more difficult for people to ignore conditions that surround them, such as pollution from automobiles, than it is for them to ignore conditions that are less visible or that are geographically remote, such as ozone depletion.

The link between post-materialist values and environmental concerns is consistent with findings from Australia⁴³ and Western Europe⁴⁴ but not with what was found in a study of Canadian public opinion. Using national level survey data, Nevitte and Kanji found no difference between materialists and post-materialists in levels of environmental concern, a finding that they acknowledge is surprising.⁴⁵ Our results are quite robust and are more consistent with theoretical expectations, so we are inclined to believe them.

More surprising is the strong impact of political ideology as measured by our neo-conservatism dimension. Rohrschneider finds ideological effects on attitudes towards environmental protection in Belgium and the United Kingdom, but in both cases the effects are substantially weaker than are those for post-materialism.⁴⁶

We conclude with a consideration of what our findings imply for provincial politics and public policy. Environmental concerns are clearly salient to a substantial number of British Columbians, hence their place on the agenda of government seems assured. Moreover, these concerns are linked to fundamental values that shape the way

⁴³ McAllister, "Dimensions of Environmentalism."

⁴⁴ Robert Rohrschneider, "Citizen's Attitudes towards Environmental Issues: Selfish or Selfless?" *Comparative Political Studies* 31 (1988), 346-367.

⁴⁵ Nevitte and Kanji, "Explaining Environmental Concern," 94. Their measure of environmental concern deals with issues similar to those we included under global concern, but it is not identical to ours.

⁴⁶ Rohrschneider, "Attitudes towards Environmental Issues," 360. There are no significant ideological effects in the three other countries (Italy, France, and Germany) in his study. However, his study and ours measure the relevant variables in somewhat different ways.

in which people see the political world. In fact, there is a greater potential for environmental issues to be caught up in the struggle between Left and Right in British Columbia than in other jurisdictions. However, individual value positions explain less about the variation in local concerns — those that focus on the quality of the local environment. This suggests to us that a potential exists for a mobilization, on behalf of environmental causes, that speaks to the direct experience of individuals and that cuts across ideological boundaries.

APPENDIX: POLITICAL VALUE MEASURES

Populism

Respondents were asked to indicate the extent to which they agreed or disagreed with the following statements, using a scale from 1 to 7:

- We could probably solve most of the big political problems if government could actually be brought back to people at the grass roots.
- Communities grow best through private decisions by individuals who know their own needs.
- A high priority should be placed on giving people more say in important government decisions.
- What we need is a government that protects the environment without all this red tape.

Populism scores are an average of the responses, yielding a scale that runs from 1 (low populism) to 7 (high populism). The sample mean is 5.4.

Neo-conservatism

Respondents were asked to indicate the extent to which they agreed or disagreed with the following statements, using a scale from 1 to 7:

- The government should do more to protect the environment, even if it leads to higher taxes.
- To prevent the destruction of natural resources, the government must have the right to control private land use.
- Protection of the environment requires more extensive regulation of business by government.

Neo-conservative scores are an average of the responses adjusted so that higher scores are associated with opposition to government action in each case. The sample mean is 3.4.

Post-materialism

This scale is based on the work of Ronald Inglehart.⁴⁷ Respondents were asked to indicate whether they give high priority, medium priority, low priority, or no priority to each of following twelve goals:

Materialist

- maintain a high rate of economic growth
- make sure Canada has strong defence forces
- maintain a strong economy
- fight rising prices
- maintain order in the nation
- fight against crime

Post-materialist

- give people more say in important government decisions
- progress toward a less impersonal, more humane society
- see that people have more say in how things get decided at work and in their community
- protect freedom of speech
- protect nature from being spoiled and polluted
- progress toward a society where ideas are more important than money

Each respondent was given a score of +1 for each post-materialist value assigned high priority. An additional point was added for each materialist value considered to have low priority or no priority at all. Finally, a point was subtracted for each materialist value viewed as high priority. The scale has a theoretical range from -6 to +12. In fact, however, the highest score obtained in the sample was +8. The sample mean is 1.2.

⁴⁷ Inglehart, *Silent Revolution*.