

COMMENTARY

# The environment, left-wing political orientation and ecological economics

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## Abstract

The objectives of this commentary are twofold. The first is to examine the relationship between a party's position within the left–right political spectrum and its stance on environmental issues, as stated in party manifestos. The second is to examine the relationship between individuals' ideological orientation and pro-environmental beliefs, attitudes and self-reported behavior. Equality, distributional concerns and market skepticism are typically regarded as defining factors of left-wing political orientation. Our results suggest that left-wing parties and individuals are also more pro-environmental than their right-wing counterparts. Ecological economics similarly embraces sustainability, efficient resource allocation and equitable distribution and is skeptical towards the ability of unregulated markets to achieve these objectives. The hypothesis is put forward that ecological economics is more likely to be supported by left-wing parties and individuals.

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## 1. Introduction

Existing evidence on the link between the position of parties within the political spectrum as well as self-identified ideology of individuals on the one hand and pro-environmental orientation on the other is confined to single country studies (e.g., Dietz et al., 1998; Dunlap et al., 2001) or the study of a very limited number of countries (e.g., Somma

and Tolleson-Rinehart, 1997; Hayes, 2001). This short article demonstrates that political parties on the left of the political spectrum and individuals who identify themselves as left-wing are more likely to embrace pro-environmental positions than their right-wing counterparts. It thus confirms existing studies but provides more comprehensive evidence from a much larger sample of countries. Pro-environmental orientation thus complements distributional concerns and skepticism toward the beneficial effects of unregulated markets, which are traditionally regarded as separating the political left from the political right. This resembles the three

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pillars of ecological economics: sustainability, equity and efficiency (correction of market failures). The hypothesis is put forward that based on this evidence, one can expect that ecological economics is more likely to be supported by left-wing parties and individuals.

## 2. Party orientation and environmental protection in party manifestos

Do left-wing parties embrace environmental protection more strongly than right-wing parties in their official party statements? One might expect this to be the case given that environmental protection often calls for government intervention, imposes costs on business and given that the poor and the working class are more likely to suffer from pollution than the rich. Left-wing political parties tend to embrace more governmental intervention, are less probusiness and are more concerned about the welfare of the lower social classes than right-wing parties (Dunlap et al., 2001; Neumayer, 2003). In this article, we want to test the hypothesis that left-wing parties are pro-environmental in a large cross-national sample with the help of data derived from party manifestos. Exploring why left-wing parties might differ from right-wing parties would be beyond the scope of this paper.

The Manifesto Research Group (MRG) has counted the sentences of party manifestos for national elections of all significant parties from 25 countries over the period 1945 to 1998 and has grouped them into one of 54 policy categories (Budge et al., 2001). A significant party is defined as one that is either represented in the national assembly or whose existence impacts upon the competition of other parties. The countries, the period of elections, number of elections, number of parties and programs covered are listed in Table 1. The data pass standard temporal stability and intercoder reliability tests. The MRG also offers a number of tests, which support the validity of the data (Budge et al., 2001, ch. 5 and 6).

The percentage of sentences in a manifesto devoted to a particular policy category can be interpreted as an indication of the relative importance a party attaches to this category. For example, the policy category

Table 1

Summary information of Manifestos Research Group data set

Countries	Elections	# Elections	# Parties	# Programs
Australia	1946–1998	22	5	78
Austria	1949–1995	15	5	50
Belgium	1946–1995	17	17	109
Canada	1945–1997	17	6	62
Denmark	1945–1994	21	16	183
Finland	1945–1995	15	13	93
France	1946–1997	14	15	66
Germany	1949–1998	14	15	61
Greece	1974–1996	9	8	33
Iceland	1946–1995	16	10	68
Ireland	1948–1997	16	9	62
Israel	1949–1996	14	40	121
Italy	1946–1996	14	20	106
Japan	1960–1996	13	12	70
Luxembourg	1945–1994	12	8	49
Netherlands	1946–1998	16	10	86
New Zealand	1946–1996	18	5	52
Norway	1945–1993	13	9	85
Portugal	1975–1995	9	14	59
Spain	1977–1993	6	14	45
Sweden	1948–1998	17	8	93
Switzerland	1947–1995	13	9	63
Turkey	1950–1995	12	13	35
United Kingdom	1945–1997	15	5	47
United States	1948–1996	13	2	26

For an additional 189 observations, no programs for elections had been passed. These were estimated as averages from adjacent election programs.

Source: Budge et al. (2001: 97).

most relevant to the analysis here is called ‘Environmental Protection’. The relative importance of this category is measured as the percentage of sentences contained in a manifesto that embraces one of the following as a policy goal of the party: ‘Preservation of countryside, forests, etc.; general preservation of natural resources against selfish interests; proper use of national parks, soil banks, etc.; environmental improvement’ (Budge et al., 2001, p. 226).

There are two ways for measuring the position of a party within the left–right political spectrum. One is to follow a dichotomous classification of parties such as the one in Swank’s (2002) Comparative Parties Data Set. Table 2 presents the list of all parties considered as left-wing by Swank, which is an amended version of Castles and Mair’s (1984) classification and derived from country experts’ placement of parties on the left–right political spectrum. One of the

Table 2  
Classification of left-wing parties according to Swank (2002)

Left-wing parties		
Country	Major traditional left-wing parties	Major left-libertarian parties
Australia	Labour, Communist, Australia Party	Greens
Austria	Socialist, Communist	United Greens, Green Alternative
Belgium	Socialists, Communists	Ecologists, Live Differently (Agalev)
Canada	New Democratic, Communist	Green Party
Denmark	Left Socialists, Communists, Social Democrats	Socialist's People's Party, Green Party
Finland	People's Democratic League/Communist, Social Democrats, Worker's League/Social Democratic League	Green League, Ecology Party
France	Communists, Socialists, miscellaneous smaller parties	Greens, Ecologists
Germany	Communist, Social Democrats, Party of Democratic Socialism	Greens (Alliance 90/Greens), Ecologists
Greece	Panhellenic Socialist Movement, Communist, Greek Left, Progressive Left Coalition	Green Lists, Ecologists Alternative
Ireland	Workers, Labour, Sein Fein, Clanna Talmhan, Clanna Pablahtta	Greens
Italy	Communists, Socialists, Left Democrats, miscellaneous smaller parties	Greens, Radical Party
Japan	Communists, Socialists, Democratic Socialists	Ecology Party
Netherlands	Labour, Communists	Green Progressive Accord/Green Left, The Greens
New Zealand	Labour, Communist	Values Party/Green Party
Norway	Labour, Communists	Socialist People's/Left Party, Greens, People's List for Environment and Solidarity
Portugal	Socialist, Communist, Democratic Renewal, Democratic Movement, United Democratic Coalition/People's Alliance, Popular Democratic Union	Greens
Spain	Communist, Socialist, United Left, Herri Batasuna, miscellaneous small parties	Green List (LV), Ecological Greens (LVE)
Sweden	Communists, Social Democrats	Greens
Switzerland	Social Democrats, miscellaneous small parties	Progressives, Greens, Alternative Greens
United Kingdom	Labour	Ecology/Green Party
United States	None	Green Party

disadvantages is that parties are categorized as either left-wing or not, which ignores the more subtle differences among parties. Another disadvantage is that Swank (2002) classifies parties in only 21 out of the 25 countries, for which the MRG provides data. An alternative is to see the left–right political spectrum as a continuum and to position parties according to what they say on policy issues, which are regarded as dividing the political left from the political right. Within the party manifestos project, parties are located on the political spectrum according to the sum of the percentages devoted to 13 pro-right categories minus the sum of percentages devoted to thirteen pro-left categories. The categories are listed in Table 3. They cover a broad spectrum of ideology, including economic, political and social ideology. Note that they do not include the category ‘Environmental Protection’, the inclusion of which would cause identity bias in the estimations reported below. The

MRG’s method assumes that what distinguishes left-wing from right-wing parties is comparable across countries and time. Such an assumption is contestable

Table 3  
Categories for placing parties on left–right spectrum according to Budge et al. (2001)

Pro-right categories	Pro-left categories
Military: Positive; Freedom and human rights; Constitutionalism: Positive; Political Authority; Free Enterprise; Incentives; Protectionism: Negative; Economic Orthodoxy; Welfare State Limitation; National Way of Life: Positive; Traditional Morality: Positive; Law and Order; Social Harmony	Anti-imperialism; Military: Negative; Peace; Internationalism: Positive; Democracy; Market Regulation; Economic Planning; Protectionism: Positive; Controlled Economy; Nationalization; Welfare State Expansion; Education Expansion; Labor Groups: Positive.

Source: Budge et al. (2001).

of course. However, Budge et al. (2001, ch. 1 and 2) point out that their location of parties within the political spectrum across countries and time agrees well with that of other analyses that use a different methodology.

The correlation coefficient between a dummy variable, which is coded as one for all parties considered as left-wing by Swank (2002) and the percentage of sentences in parties' manifestos embracing environmental protection, is 0.08 and statistically significant at  $p < 0.0009$ , with  $N = 1687$  manifestos from 21 countries over the full time period. The correlation coefficient is relatively low, but a paired  $t$ -test rejects the hypothesis that the mean value is the same for left-wing versus all other (centrist and right-wing) parties at  $p < 0.031$ . Note that the paired  $t$ -test standard error is estimated under the conservative assumption that observations are only independent between, but not necessarily within, parties over time (clustering). Next, we repeat the analysis for a dummy variable coded as one only for parties considered by Swank (2002) as left-libertarian (see Table 2). The distinction between traditional and left-libertarian parties is based on Kitschelt (1994) who argues that the latter share many of the social values with the former (particularly the value of equality) but want greater individual freedom from governmental paternalism and subscribe to many of the values Inglehart (1990) calls postmaterialistic. The correlation coefficient is now much higher at 0.41, statistically significant at  $p < 0.0000$ . The paired  $t$ -test rejects the hypothesis of equal mean value for left-libertarian versus all other parties at  $p < 0.002$ . This suggests that left-libertarian parties are much more proenvironmental than other parties, including traditional left-wing parties. Finally, if we go beyond the simple dichotomous party variable and instead measure left-wing party orientation on a continuum with data from the MRG itself, then the correlation coefficient is 0.16, statistically significant at  $p < 0.0000$ , with  $N = 1991$  from 25 countries, covering all parties from all countries included in the MRG data set. Clearly, whichever method is applied, parties located further to the left of the political spectrum are more pro-environmental than those located further to the right, and left-libertarian parties are particularly pro-environmental.

### 3. Individual left-wing political orientation and support for environmentalism

To test whether the self-reported political orientation of individuals has a significant effect on their willingness to support environmental protection and environmentalism, we analyze survey data from the World and European Values Surveys 1981–1984, 1990–1993 and 1995–1997 (Inglehart et al., 2000). It is the only cross-national survey that includes a large sample of both developed and developing countries and that asks for both support of environmentalism as well as self-identified political ideology. Our sample draws from between 32,296 and 89,906 individuals from between 44 and 62 countries and, in a few cases, regions within countries. The difference in both the number of individuals and countries/regions included is due to the fact that most of our questions were asked in only one wave and were not always asked in all countries and regions. For most questions, data are available for 40,585 individuals from 45 countries and regions, which are listed in Table 4.

Similar to the last section, analyzing why individuals with left-wing political orientation might differ from individuals with right-wing orientation is beyond the scope of this paper. We only want to test whether such a difference exists in the largest cross-national sample ever employed to test this hypothesis. Eight of the 10 relevant questions described below were only asked in the third wave, one in all three waves and one in the last two waves. Where questions were asked in different waves, dummy variables for the relevant wave were included to account for global changes over time. Following and slightly extending Dietz et al.'s (1998) framework, we distinguish survey questions on environmental beliefs and environmental attitudes, of which there is just one available for each, questions on self-reported consumer behavior and behavioral intentions and questions on self-reported political behavior. Table 5 lists the questions asked and the categories of answers from which respondents could choose. For questions 3–5, 9 and 10, a 'do not know' answer was regarded as an indication that the individual has not engaged in pro-environmental behavior. For questions 1, 2, 6 and 7, 'do not know' answers were discarded since as no meaning

Table 4  
Sample of 45 countries and 40,585 individuals from World and European Values Surveys

Countries/regions	# Individuals
Andalusia	1145
Armenia	1428
Australia	1584
Azerbaijan	1294
Bangladesh	923
Basque Region	1497
Belarus	1168
Bosnia–Herzegovina	1016
Brazil	145
Bulgaria	808
Chile	786
Colombia	2726
Croatia	780
Dominican Republic	315
Estonia	763
Finland	563
Galicia	914
Georgia	1803
Germany (East)	829
Germany (West)	769
India	1055
Japan	721
Latvia	910
Lithuania	718
Macedonia	588
Mexico	879
Moldova	741
Montenegro	173
Nigeria	1353
Norway	971
Peru	293
Poland	781
Russia	1043
Serbia	885
Slovenia	673
Spain	716
Sweden	723
Switzerland	837
Taiwan	655
Tambov region (Russia)	183
Ukraine	1357
United States	1029
Uruguay	897
Valencia	315
Venezuela	833

could be inferred from these answers. All missing and other answers not compatible with the categories offered were discarded. Most questions then lead naturally to dichotomous variables. Question 8 was made a dichotomous variable by counting active

membership as one and the rest as zero to focus on activity rather than passive membership. The five-point scale variables of questions 2, 6 and 7 were recoded such that higher values mean greater

Table 5  
Environmental survey questions and answer categories

#### *Environmental belief*

- Q1: Here are two statements people sometimes make when discussing the environment and economic growth? Which of them comes closer to your own point of view? (1) Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs. (2) Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent. (3) Other answer (4) Do not know

#### *Environmental attitude*

- Q2: How much confidence do you have in the Green/Ecology movement: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (1) A great deal (2) Quite a lot (3) Not very much (4) None at all (5) Do not know

#### *Self-reported consumer behavior and behavioral intentions:*

- Q3: Have you chosen household products that you think are better for the environment? (1) Have done (2) Have not (3) Do not know
- Q4: Have you decided for environmental reasons to reuse or recycle something rather than throw it away? (1) Have done (2) Have not (3) Do not know
- Q5: Have you tried to reduce water consumption for environmental reasons? (1) Have done (2) Have not (3) Do not know
- Q6: “I would agree to an increase in taxes if the extra money were used to prevent environmental damage”. Can you tell me whether you agree strongly, agree, disagree or disagree strongly? (1) Strongly agree (2) Agree (3) Disagree (4) Strongly disagree (5) Do not know
- Q7: “I would agree to buy things at 20% higher than usual prices if it would help protect the environment”. Can you tell me whether you agree strongly, agree, disagree or disagree strongly? (1) Strongly agree (2) Agree (3) Disagree (4) Strongly disagree (5) Do not know

#### *Self-reported political behavior:*

- Q8: Could you tell me whether you are an active member, an inactive member or not a member of an environmental organization? (1) Active member (2) Inactive member (3) Do not belong
- Q9: Have you attended a meeting or signed a letter or petition aimed at protecting the environment? (1) Have done (2) Have not (3) Do not know
- Q10: Have you contributed to an environmental organization? (1) Have done (2) Have not (3) Do not know

Source: Inglehart et al. (2000).



environmentalism. The question of ideological self-identification is worded as follows: ‘In political matters, people talk of “the left” and “the right”. How would you place your views on this scale, generally speaking?’. A ten-point scale is offered, and the resulting variable was recoded such that higher values imply self-identification further to the left.

The empirical literature on individual support for environmental protection (reviewed in Dietz et al., 1998) suggests the following as control variables: gender, marital status, number of children, age, religiosity, employment status, social status, education status as well as size of settlement. Information on these is also collected as part of the surveys. To account for potential structural differences between individuals in developed and developing countries (Brechin, 1999), a dummy variable for developing countries was also included (all countries other than Western European countries, Canada, the US, Japan, Australia and New Zealand).

Table 6 presents estimation results where for reasons of space, only the coefficients of the self-identified political ideology variable are shown. All dichotomous dependent variables are estimated with logit, the remaining variables with ordered logit. These estimators are appropriate for binary and ordinal categorical dependent variables, whereas ordinary least squares (OLS) is not. In statistical analysis of survey data, it is important to correct for the fact that observations are almost always not sampled independently but sampled as a group or cluster. For the World and European Value Surveys, the clusters are the countries and subnational regions in which the surveys were undertaken, and in the estimations below, observations are assumed not to be independent within clusters. This leads to very conservative estimates, with standard errors much higher than without clustering. Also, survey analysis often employs sample weights, where the weights are proportional to the inverse of the probability of being sampled to account for the fact that interviewees, although randomly selected, might have different probabilities of selection. Winship and Radbill (1994) argue against the use of sample weights, but we include them here to be on the safe side. This is because the inclusion of sample weights typically leads to much higher standard error estimates than

without such weighting, as nonreported further analyses showed. It is therefore not surprising that despite the large sample size with respect to the number of individuals, the estimated absolute  $t$ -values are not very high. If no sample weights were used, then  $t$ -values would be much higher and statistically significant for all coefficients. Also, note that the pseudo  $R^2$  values are relatively low, which is typical for environmental survey question studies (Dunlap et al., 2001).

The self-identified political ideology is a statistically significant determinant in eight out of 10 estimations. Left-wing-oriented individuals are more willing to give priority to environmental protection over economic growth, have greater confidence in the Green/Ecology movement and are more likely to self-report pro-environmental political behavior. The effect is not so clear when it comes to self-reported consumer behavior. Left-wing-oriented individuals are more likely to report that they have reduced water consumption and are willing to pay higher prices and taxes for environmental reasons. However, they are not more likely to report that they have chosen products for environmental reasons or recycled or reused goods. One possible explanation could be that left-wing oriented individuals might favor government intervention to solve environmental problems and might not be supportive of the idea that individual behavior can or should improve the environment.

How strong are the effects of self-identified political ideology? To see this, Table 2 also reports percentage changes in the odds following a one standard deviation move in political orientation towards the left. For logit, the odds are defined as the probability of agreeing with the question asked divided by the probability of disagreeing. For ordered logit, the odds are the probability of agreeing with a more environmentally friendly category divided by the probability of agreeing with a less environmentally friendly category. The estimates show that a one standard deviation move in political orientation towards the left raises the odds of an individual taking a proenvironmental position by between 13.8% and 35.1%. This suggests that the ideological orientation of individuals is a substantively important factor.

The other (nonreported) control variables test very much in accordance with results from the existing

Table 6

The effect of self-identified individual political ideology on environmental beliefs, attitudes and self-reported behavior

	Environment priority over growth	Confidence in Green/ Ecology movement	Choose products that are better for the environment	Recycle or reuse	Reduce water consumption	Willing to pay higher taxes	Willing to pay higher prices	Active member of environmental organization	Attended meeting or signed letter	Contributed to environmental organization
Left-wing orientation	0.089** (2.13)	0.150*** (3.64)	−0.010 (.32)	−0.007 (.22)	0.064*** (4.06)	0.111*** (2.72)	0.071*** (2.94)	0.091** (2.58)	0.110** (2.12)	0.071* (1.60)
% change in odds due to S.D. increase	19.8	35.1	−1.9	−1.4	13.8	24.9	14.6	20.1	24.7	15.2
Estimator	Logit	Ordered logit	Logit	Logit	Logit	Ordered logit	Ordered logit	Logit	Logit	Logit
Pseudo $R^2$	0.0115	0.0180	0.0622	0.0717	0.0260	0.0150	0.0094	0.0478	0.0481	0.0416
Waves	95–97	95–97	95–97	95–97	95–97	90–93/95–97	95–97	81–84/90–93/95–97	95–97	95–97
# countries/ regions	44	45	45	45	45	59	44	62	45	45
# individuals	32,296	37,264	40,585	40,585	40,585	68,699	36,131	89,906	40,585	40,585

Reported coefficients are logit/ordered logit coefficients. Gender, marital status, number of children, age, religiosity, social status, education status, size of settlement, developing country dummy and where applicable dummy variables for survey wave included as control variables, but coefficient estimates are not reported. Absolute  $t$  values in brackets with standard errors adjusted for clustering on countries.

\* Significant at  $p < 0.1$ .

\*\* Significant at  $p < 0.05$ .

\*\*\* Significant at  $p < 0.01$ .

literature. Females, the younger ones, individuals with partners, parents with children, the employed, those with higher social and educational status, those living in bigger settlements and individuals who state that they believe in God are often more proenvironmental. No systematic structural difference between developed and developing countries is apparent.

#### 4. Implications for ecological economics

Distributional concerns and skepticism towards the beneficial effects of unregulated markets are traditionally regarded as important factors distinguishing left-wing political parties from right-wing parties, as indicated by many of the pro-left and pro-right categories listed in Table 3. It is plausible to assume that individuals who identify themselves as left-wing share these concerns and the skepticism towards unregulated markets. This short article has put forward evidence that such left-wing political orientation goes hand in hand with greater willingness of parties to embrace pro-environmental issues in election manifestos and more pro-environmental beliefs, attitudes and self-reported consumer and political behavior of individuals. It confirms earlier studies, but its evidence is based on a much larger cross-national sample than previous studies.

As a caveat, the evidence put forward here is tentative rather than conclusive and needs to be qualified by the fact that the results on party orientation stem from a sample almost exclusively drawn from developed countries that the analysis on individual orientation draws upon a broader, but still not global sample, and that the power of the statistical tests employed is somewhat limited. It is hoped that, in future research, more evidence from a more representative sample can be added. For example, the party manifestos data set is in the process of being extended to Eastern Europe and Latin America. Similarly, the data for the fourth wave of the World Values Survey, which was undertaken in 1999 to 2001 and covers more countries from all over the world than the waves before, are to be published in due course.

What are the implications of the results reported above for ecological economics? Besides sustainable

scale and efficient allocation (correction of market failures), a fair and equitable distribution represents the third pillar of ecological economics (Costanza et al., 1997). Other ecological economists have gone further and argued that a fair and equitable distribution is a prerequisite for achieving sustainable scale (Boyce, 1994; Martinez-Alier, 2002). Ecological economists have also always been highly skeptical towards the potential of markets on their own to achieve these three objectives. Based on the evidence reported in this article, I put forward the hypothesis that ecological economics, its values and objectives is more likely to be supported by left-wing political parties and individuals than their right-wing counterparts. Admittedly, so far, the hypothesis is based on indirect and tentative evidence, but ecological economists are invited to join the endeavor to test the hypothesis more directly in future research.

#### References

- Boyce, J.K., 1994. Inequality as a cause of environmental degradation. *Ecol. Econ.* 11, 169–178.
- Brechin, S.R., 1999. Objective problems, subjective values and global environmentalism. *Soc. Sci. Q.* 80, 793–809.
- Budge, I., Klingemann, H.D., Volkens, A., Bara, J., Tanenbaum, E., 2001. Mapping Policy Preferences—Estimates for Parties, Electors, and Governments 1945–1998. Oxford University Press, Oxford. 274 pp.
- Castles, F.G., Mair, P., 1984. Left–right political scales: some ‘expert’ judgments. *Eur. J. Polit. Res.* 12, 73–88.
- Costanza, R., Cumberland, J.H., Daly, H.E., Goodland, R., Norgaard, R.B., 1997. An Introduction to Ecological Economics. St. Lucie Press, Boca Raton. 275 pp.
- Dietz, T., Stern, P.C., Guagnano, G.A., 1998. Social structural and social psychological bases of environmental concern. *Environ. Behav.* 30, 450–471.
- Dunlap, R.E., Xiao, C., McCright, A.M., 2001. Politics and environment in America: partisan and ideological cleavages in public support for environmentalism. *Environ. Pol.* 10, 23–48.
- Hayes, B.C., 2001. Gender, scientific knowledge, and attitudes toward the environment: a cross-national analysis. *Polit. Res. Q.* 54, 657–671.
- Inglehart, R., 1990. Culture Shift in Advanced Industrial Society. Princeton University Press, Princeton.
- Inglehart, R., et al., 2000. World Values Surveys and European Values Surveys, 1981–1984, 1990–1993, 1995–1997. Inter-University Consortium for Political and Social Research, Michigan, Ann Arbor.
- Kitschelt, H., 1994. The Transformation of European Social Democracy. Cambridge University Press, Cambridge. 345 pp.



- Martinez-Alier, J., 2002. *The Environmentalism of the Poor*. Edward Elgar, Cheltenham. 312 pp.
- Neumayer, E., 2003. Are left-wing party strength and corporatism good for the environment? *Ecol. Econ.* 45, 203–220.
- Somma, M., Tolleson-Rinehart, S., 1997. Tracking the elusive green women. *Polit. Res. Q.* 50, 153–169.
- Swank, D., 2002. Political strength of political parties by ideological group in capitalist democracies. 21-nation pooled time-series data set. <http://www.marquette.edu/polisci/Swank.htm>.
- Winship, C., Radbill, L., 1994. Sampling weights and regression analysis. *Methods Soc. Res.* 23, 230–257.