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Pro-environmental Behaviours and Activism in a Comparative European Perspective

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This article investigates pro-environmental behaviours and activism focusing on the patterns of environmentally-oriented *public* behaviours (e.g. civic activities such as signing a petition about an environmental issue, giving money to an environmental group, or taking part in a protest or demonstration about an environmental issue, being a member of an environmental group) as well as environmentally-oriented *private* behaviours (e.g. sorting glass or tins or plastic or newspapers and so on for recycling, cutting back on driving a car, reducing the energy or fuel you use at home, choosing to save or re-use water and avoiding of buying certain products for environmental reasons). The article is based on data from the International Social Survey Programme (ISSP) module Environment 2010.

Keywords: environmental activism, public pro-environmental behaviour, private pro-environmental behaviour, European countries, ISSP

INTRODUCTION

Environmental activism and other ways of pro-environmental behaviours have become a valuable part of our contemporary societies. Although there is a growing literature on this issue (Freymeyer, Johnson 2010; Balžekienė, Telešienė 2011; Hadler, Haller 2011; 2013; Franzen, Vogl 2013; Reyes 2013; 2014), many questions about the environmental behaviour and activism in a comparative perspective are still understudied. This article relies on data from 2010 *International Social Survey Programme* (ISSP) module *Environment* and aims to examine cross-national variation in public and private environmental behaviours. Thus, this article addresses the main question: *What are the patterns of environmental activism and other pro-environmental behaviours across different European countries*? The article investigates both environmentally-oriented *public* behaviours (such as signing a petition about an environmental issue, giving money to an environmental group, or taking part in a protest or demonstration about an environmental issue or being a member of an environmental group) and environmentally-oriented *private* behaviours (such as sorting waste for recycling, cutting back on driving a car, reducing the energy or fuel you use at home, choosing to save or re-use water and avoiding of buying certain products for environmental reasons). Ordinary least

squares (OLS) regression analysis was used to find the major determinants of public and private environmental behaviour.

THEORETICAL BACKGROUND AND HYPOTHESES

Most research that focus on determinants of environmental concern, activism and pro-environmental behaviours incorporate the impact of socio-demographic factors (such as age, gender, level of education, etc.) (Kvaløy, Finseraas, Listhaug 2012; Freymeyer, Johnson 2010). As emphasized by Marquart-Pyatt (2012: 1086), "since the 1970s, scholars have tracked public opinion on environmental issues and concerns and have considered many explanations regarding the social factors influencing environmental concern". A recent literature review also shows that factors influencing the expression of environmental concerns across nations is of high importance. Many studies have examined the impact of individual characteristics like age, gender, education, income, and knowledge on environmental concerns (Marquart-Pyatt 2012) and environmental behaviours (Freymeyer, Johnson 2010). It has been shown that religiosity, in general, and the attendance of religious services, in particular, can also influence the concern for environmental issues (Kvaløy, Finseraas, Listhaug 2012; Clements, McCright, Xiao 2014). "Pro-social" orientations and a high level of social trust can be positively correlated with pro-environmental behaviours, particularly environmental activism and other public oriented pro-environmental behaviour. The positive correlation between social values orientation and past and intended involvement in pro-environmental political behaviour has been found by Joireman, Lasane, Bennett, Richards, and Solaimani (2001). Zhou (2015) assumed that "if individuals are suspicious of the society in general, they are likely to be distrustful of environmental claims circulated in the society too" (2015: 65) and found that "trust in general society and science has a significantly negative effect on environmental scepticism" (2015: 71). Another determinant of pro-environmental behaviour is the levels of knowledge people have about the environment. Knowledge has been considered to be the main factor that can influence the perception of risk concerning science and technology (Kim, Choi, Wang 2013) and one of major determinants of an environmentally significant behaviour (Stern 2000). Deficient knowledge can be a factor that negatively influences environmental activism.

There are some attempts to set integrated frameworks for the analysis of pro-environmental behaviour. One of them is the Integrated Framework for Encouraging Pro-Environmental Behaviour (IFEP) that allows a more comprehensive and detailed analysis of the variables and processes that play a role in effective pro-environmental behaviour change (Steg, Bolderdijk, Keizer, Perlaviciute 2014). The authors suggest that IFEP should encompass several aspects: (a) reducing or even removing the conflict between normative goals, on the one hand, and hedonic and gain goals, on the other; and (b) targeting and strengthening normative goals (Steg, Bolderdijk, Keizer, Perlaviciute 2014). Summarizing, the authors focus on three different goals (hedonic, gain, and normative goals) that "steer attention and influence which information people detect, what knowledge is most accessible, what action alternatives are perceived, and how they will act" (Steg, Bolderdijk, Keizer, Perlaviciute 2014). In the analysis of pro-environmental behaviours there are also attempts to classify behaviours. Hadler and Haller (2011; 2013) focus their research on a comparison of two types of environmental behaviour, public and private behaviour. They found that public behaviour is quite similar across countries, however, private behaviour "differs to a larger extent across countries and is influenced more strongly by the national context" (Hadler, Haller 2011: 333).

This article follows the approach proposed by Hadler and Haller (2011; 2013) to focus on two types of pro-environmental behaviours and the above mentioned literature review makes the ground for the following set of hypotheses:

Hypothesis 1: Younger people, female and individuals with a high level of education will be more likely to be engaged into public and private environmental behaviours than the elderly, male and individuals with a low level of education.

Hypothesis 2: Individuals who have a higher availability of time to act, particularly single and non-members of other organizations, will be more likely to be engaged into public environmental behaviours than those with a lower availability of time.

Hypothesis 3: Individuals who frequently attend religious services will be more likely to be engaged into public and private environmental behaviours.

Hypothesis 4: Individuals who have a higher level of social trust will be more likely to be engaged into public environmental behaviours than those with a lower level of social trust.

Hypothesis 5: Individuals with a higher level of self-assessed knowledge and awareness about environmental issues will be more likely to be engaged into public and private environmental behaviours than individuals with a lower level of knowledge and awareness.

These hypotheses have been tested using the data from the International Social Survey Programme (ISSP).

DATA AND METHODS

Detailed information about the survey could be accessed through the ISSP website (www.issp.org) and data can be retrieved from the GESIS Data Archive for Social Sciences. The sample used in this article includes 23,513 respondents from 18 countries: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Latvia, Lithuania, Norway, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Great Britain and/or United Kingdom.

In the analysis, I have used two items as dependent variables:

– Public environmental behaviour index;

– Private environmental behaviour index.

The public and private environmental behaviour indexes were calculated using the methodology similar to that of Haller and Hadler (2011; 2013). The analysis employs nine environmental behaviour items, dividing them into *public behaviour* ('being a member of an environmental organization' and having 'signed a petition', 'donated money', or 'attended a demonstration' during the last five years") and *private behaviour* ('cutting back on driving a car for environmental reasons', 'making a special effort to sort glass or tins or plastic or newspapers and so on for recycling', 'reducing the energy or fuel you use at home for environmental reasons', 'choosing to save or re-use water for environmental reasons', and 'avoiding buying certain products for environmental reasons'). Haller and Hadler (2011; 2013) used six environmental behaviour items (4 for public and 2 for private oriented behaviour) as they employed historical comparison and just these items were eligible for comparison during the whole period of time (surveys in 1993, 2003, and 2010). In my case, I take the data from a representative public opinion survey on *Environment*, conducted in 2010. In 2010, this module had 3 new items, measuring private environmental behaviour, namely, 'reducing the energy or fuel you use at home for environmental reasons', 'choosing to save or re-use water for environmental reasons', and 'avoiding buying certain products for environmental reasons', thus the private environmental behaviour index has been computed from 5 items. I also used the approach different from that of Haller and Hadler (2011; 2013) for computing

the private environmental behaviour index. Originally in the questionnaire it was measured by a four-point scale (1 = Always, 2 = Often, 3 = Sometimes, and 4 = Never). In the analysis, I transformed the variable into a two-point scale ('Yes, I have' – for those who did some of the actions, and 'No, I have not' – for those who did not). Thus, in the analysis I use the same measurement scale for both the public environmental behaviour index and private environmental behaviour index. The consistency coefficient Cronbach's Alpha for the private environmental behaviour index (computed from 5 above mentioned items) is 0.7, and the consistency coefficient Cronbach's Alpha for the public environmental behaviour index (computed from 4 above mentioned items) is a little bit lower, i.e. 0.6.

A set of independent variables that have been used in the analysis includes the following: (1) Age of respondent (in years); (2) Gender (male, female); (3) Education (years of schooling); (4) Marital status/partnership (married, living with a partner vs single); (5) Attendance of religious services (frequency); (6) Employment (employed vs unemployed); (7) Membership in trade unions (member vs non-member); (8) Social trust (5-point scale for the question "Generally speaking, would you say that most people can be trusted, or that you cannot be too careful in dealing with people?"); (9) Trust in government (5-point scale of agreement/disagreement with the statement "Most of the time we can trust people in government to do what is right"); (10) Concern about environment (5-point scale for the question "Generally speaking, how concerned are you about environmental issues?"); (11) Environmental knowledge/awareness (a 5-point scale where 1 = "know nothing at all", and 5 = "know a great deal" for the question "How much do you feel you know about the causes of these sorts of environmental problems; (12) Attitudes towards modern life (5-point scale of agreement/disagreement with the statement "Almost everything we do in modern life harms the environment"); (13) Willingness to scarify for environment – pay higher prices, pay higher taxes or accept cuts in living standard – in order to protect the environment (5-point scale where 1 = "very willing" and 5 = "very unwilling" for the questions "How willing would you be to pay much higher prices in order to protect the environment?", "And how willing would you be to pay much higher taxes in order to protect the environment?", "And how willing would you be to accept cuts in your standard of living in order to protect the environment?"); (14) Importance of environmental protection (5-point scale of agreement/disagreement with the statement "There are more important things to do in life than protect the environment").

Some variables were used for the analysis, even having no advanced predictions about its impact. I have used weighted data for the analysis. The ordinary least squares (OLS) regression analysis was used to find the major determinants of public and private environmental behaviour.

FINDINGS

The data show that a mean score for the private environmental behaviour index for all countries is 0.7702 (range 0–1) and a mean score for the public environmental behaviour index for all countries is 0.1017 (range 0–1) (see Table 1).

That means that private environmental behaviour is more common to European population than public behaviour. On average 77% of respondents have been practising environmentally-

Table 1. **Private and public environmental behaviour index: mean scores**

	Mean	Std. Deviation	N
Private environmental behaviour index	0.7702	0.2818	15979
Public environmental behaviour index	0.1017	0.19862	15976

oriented behaviour in the private sphere. On the other hand, an average of just 10% of respondents at the European level were engaged into environmentally-oriented behaviour in the public sphere: being a member of an environmental group, having signed a petition, donated money, or attended a demonstration during the last five years.

The research data show some systemic clustering among countries (Figure). The lowest score of private environmental behaviour is in Bulgaria (0.5295) and the highest one is in France (0.9090). The Western European countries such as France, Switzerland, Belgium, Germany, Austria, Finland and Denmark are above the mean score regarding the private environmental behaviour. This group has been joined by Slovenia as the only exception. Sweden, Great Britain, Norway, Spain, and all post-communist countries (except Slovenia) are below the mean score.

Similar tendencies are evident for the public environmental behaviour. The Western-Northern European countries, such as Switzerland, Germany, Denmark, Sweden, Finland, Belgium, Great Britain, France, Austria, and Norway showed a much greater engagement into the public environmental behaviour than Eastern European countries. All Western-Northern European countries are above the average value of public environmental behaviour index. The Southern European country – Spain – is closer to the cluster of Eastern & Central European countries than to the Western-Northern countries considering both private and public environmental behaviours.

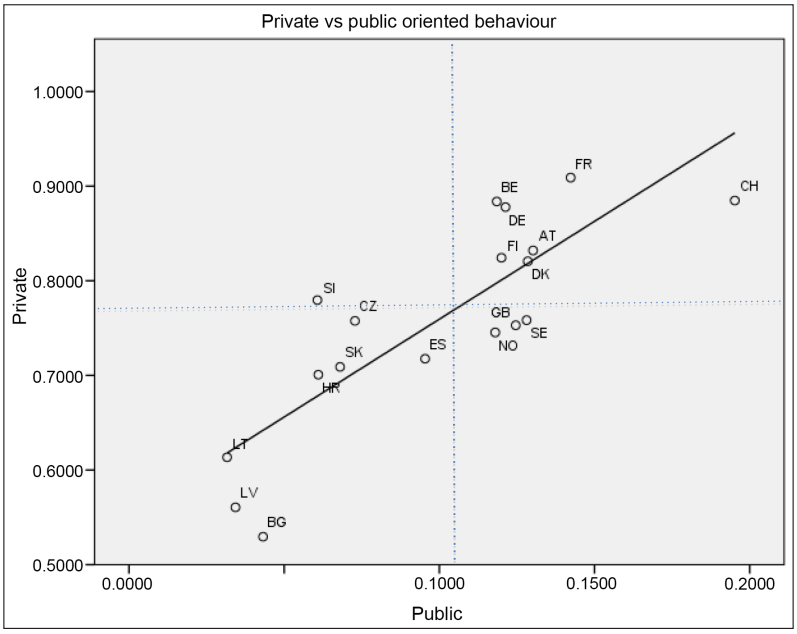

Figure. Private and public environmental behaviour in 18 European countries

Notes: $y = 2.0678x + 0.5527$; $R^2 = 0.68617$.

Source: ISSP 2010. The total sample size is 23,513 respondents.

Country abbreviations: AT: Austria, BE: Belgium, BG: Bulgaria, HR: Croatia, CZ: Czech Republic, DK: Denmark, FI: Finland, FR: France, DE: Germany, LV: Latvia, LT: Lithuania, NO: Norway, SK: Slovak Republic, SI: Slovenia, ES: Spain, SE: Sweden, CH-Switzerland, GB: Great Britain and/or United Kingdom.

There is a strong correlation between these two indexes – private and public environmental behaviour indexes (Pearson correlation 0.828, correlation is significant at the 0.01 level). But mapping private and public oriented environmental behaviours in one chart (see Figure), we can see that some countries (such as Switzerland, Great Britain, Norway, Sweden, Spain, Latvia and Bulgaria) exhibit a much lower private environmental behaviour than could be expected. On the other hand, such countries as Slovenia, Czech Republic, Belgium, Denmark and France show higher scores of private environmental behaviours than could be expected.

Table 2 therefore presents two ordinary least squares (OLS) regression results for public and private environmental behaviours.

Table 2. **Determinants of public and private environmental behaviour (results of ordinary least squares (OLS) regression analysis)**

	Private behaviour (Unstandardized B)	Private behaviour (Standardized B)	Public behaviour (Unstandardized B)	Public behaviour (Standardized B)
Social trust	NS	NS	0.013**	0.081**
Trust in government's actions	–0.005*	–0.017*	NS	NS
Concern about environment	0.037**	0.141**	0.02**	0.11**
Knowledge about causes	0.009*	0.03*	0.014**	0.068**
Knowledge about solutions	0.021**	0.071**	0.009**	0.042**
Willingness to pay higher prices	–0.015**	–0.061**	–0.006*	–0.037*
Willingness to pay higher taxes	NS	NS	–0.013**	–0.075**
Willingness to accept cuts in living standard	–0.046**	–0.193**	–0.018**	–0.106**
Importance of environmental protection (negative statement)	0.038**	0.145**	0.012**	0.068**
Attitudes towards modern life harming environment	NS	NS	–0.004*	–0.019*
Membership in trade unions (1 = member)	–0.015*	–0.023*	–0.022**	–0.047**
Sex (1 = male)	0.035**	0.061**	NS	NS
Age	0.001**	0.083**	NS	NS
Education	NS	NS	0.000**	0.032**
Attendance of religious services	–0.004**	–0.026**	NS	NS
Employment (1 = employed)	NS	NS	–0.015**	–0.036**
Marital status/partnership (1 = married/lives with a partner)	NS	NS	0.011*	0.025*
Constant	0.568	–	0.043	–
Adjusted R Square	0.191	0.191	0.137	0.137
N	15979	15979	15979	15979

Notes: * is $p < 0.05$; ** is $p < 0.00$; NS is not significant. Range values for the private environmental behaviour index: from 0 to 1.

Range of values for the public environmental behaviour index: from 0 to 1.

Source: ISSP 2010. The total sample size is 23,513 respondents.

The findings suggest that the impact of control variables is very little although we have in mind that the values for both private and public environmental behaviour indexes range from 0 to 1 (see Table 2). Nonetheless, the regression results indicate some significant correlations that can be perceived as tendencies that are important for further analysis of these issues:

– Inclination towards active private environmental behaviour depends on trust in government's actions; but trust in government's actions does not predict public environmental behaviour;

– Inclination towards active public environmental behaviour depends on social trust; but social trust does not predict private environmental behaviour;

– High environmental concern, perception of environmental protection as very important, views that modern life harms environment, and high levels of self-assessed knowledge about causes and solutions of environmental problems positively correlate with both private and public environmental behaviour;

– Those who exhibit both private and public environmental behaviour are more likely to pay higher prices and accept cuts in living standard, but willingness to pay higher taxes correlated positively just with public environmental behaviour;

– Members of trade unions are more likely to be engaged into both private and public environmental behaviour;

– Females and elder people and frequent attenders of religious services are more likely to be engaged into private environmental behaviour; but gender, age and attendance of religious services do not predict public environmental behaviour;

– Individuals with higher levels of education, employed and single are more likely to be engaged into public environmental behaviour; but education, employment and marital status cannot predict private environmental behaviour.

CONCLUSIONS

The research has shown that just a part of hypotheses was confirmed:

• The first hypothesis has been just partly confirmed as females and elder people are likely to be engaged into private environmental behaviour and more educated people tend to participate in public environmental activities.

• The second hypothesis has been partly confirmed as people who are members of trade unions and single tend to be engaged into public environmental behaviour.

• The third hypothesis has been just partly confirmed as people frequently attending religious services are likely to be engaged into private environmental behaviour.

• The fourth hypothesis has been confirmed as individuals who have a higher level of social trust will be more likely to be engaged into public environmental behaviours than those with a lower level of social trust.

• The fifth hypothesis has been confirmed. Better knowledge on the causes of environmental problems has more influence on public environmental behaviour; although better knowledge on the solutions of environmental problems has more influence on private environmental behaviour. Higher levels of concern about environment also have more influence on private environmental behaviour than on public environmental behaviour.

The research results suggest that it might be important to further analyse the reasons of differences in public and private behaviour including more contextual factors.

The research data showed differences among the countries (see Table 3 for the summary). The Western European countries such as Switzerland, Denmark, Germany, Austria,

Belgium, and France are above the mean score regarding the private and public environmental behaviours. In the middle we have Finland, Sweden, Norway, Great Britain and Slovenia. The third cluster encompasses all post-communist countries and Spain that are below the mean score regarding the private and public environmental behaviours. These tendencies can be further explored and tested by future research employing statistical methods.

Table 3. **Summary**

Country	Public environmental behaviour	Private environmental behaviour
Switzerland	*	*
Germany	*	*
Denmark	*	*
Austria	*	*
Belgium	*	*
France	*	*
Finland	*	*
Sweden	*	
Norway	*	
Great Britain	*	
Slovenia		*
Czech Rep.		
Spain		
Latvia		
Croatia		
Lithuania		
Bulgaria		
Slovak Rep.		

Notes: * is above the average.

Finally, considering a relatively high level of private environmental behaviour, so far, it has not led to widespread involvement into public environmental behaviour. This essential and obvious difference has also been emphasized by Haller and Hadler (2011; 2013). They found that "the two behaviors are drifting apart over time with private behavior converging at an overall higher level and public behavior at an overall lower level" (Haller, Hadler 2013: 486). Thus, this also means that adding 3 new dimensions to the private behaviour index ('reducing the energy or fuel you use at home for environmental reasons', 'choosing to save or re-use water for environmental reasons', and 'avoiding buying certain products for environmental reasons') does not change the tendencies.

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EGLĖ BUTKEVIČIENĖ

Aplinkosauginė elgsena ir aktyvumas lyginamojoje Europos šalių perspektyvoje

Santrauka

Straipsnyje nagrinėjama aplinkosauginė elgsena ir aktyvumas sutelkiant dėmesį į viešąją aplinkosauginę elgseną (pvz., pilietinę veiklą pasirašant peticiją dėl aplinkos problemų, aukojant lėšas aplinkosauginiams tikslams ar dalyvaujant protesto mitinguose, demonstracijose dėl aplinkosauginių tikslų, priklausymą aplinkosaugos aktyvistų grupei) bei aplinką tausojančią asmeninę elgseną (pvz., stiklo, skardinių, plastiko ar popieriaus rūšiavimą, automobilio atsisakymą aplinkosauginiais tikslais, energijos ar kuro naudojimo mažinimą, vengimą pirkti tam tikrus produktus dėl aplinkosauginių priežasčių). Straipsnyje naudojami tarptautinės socialinio tyrimo programos modulio „Aplinka" duomenys.

Raktažodžiai: aplinkosauginis aktyvumas, Europos šalys, tarptautinė socialinio tyrimo programa