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11. Eating Sustainably

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The demands for environmentally sustainable consumption have been justified by the need to reduce the burden caused by current lifestyles on the living conditions of future generations (Fuchs and Lorek 2005; UN 1992). Since the 1990s, the environmental burden caused by current food production and consumption patterns has been linked to the complexity and globalization of food production chains, the alienation of consumers from producers, the fragmentation and individualization of lifestyles, and eroding trust in institutions in “risk society” (Beck 1992). The emergent consumer practices contributing to sustainable development have become a central theme in social scientific research on food consumption patterns (e.g., Cohen 2006; Fuchs and Lorek 2005; Klintman 2009; Klintman and Boström 2012; Micheletti 2003; Stolle et al. 2005; Wahlen et al. 2012). However, more research is needed on what kind of sustainable food consumption practices consumers carry out or are ready for in their everyday lives and how these practices are related to other food practices and attitudes as well as sociodemographic backgrounds. In particular, there is a lack of crosscountry comparisons that would enable an analysis of cultural similarities and differences in sustainable food consumption.

One of the concepts used in the discussion on sustainability is “political consumption”, which has been defined as a form of consumption that involves “social, cultural, animal-related and environmental concerns that go beyond the immediate self-interests of the individual consumer or household” (Klintman and Boström 2006, p. 401). Micheletti (2003) has noted that people increasingly focus not only on “private virtues”, such as price, taste and healthiness of food, but also on “public virtues” relating to wider societal concerns of food production and consumption. This “moralization of the markets” (Stehr 2008) places demands on consumers to take into account various ethical and environmental considerations when shopping for and preparing food. As Holzer (2006) has claimed, political consumption implies that consumers can effect a social change through acting on the market, and that the rationalities of the economy and politics can be combined in consumption. In contrast to “economic” consumers, “political” consumers “choose products, producers, and services more on the basis of the politics of the product” and “their choices are informed by political values, virtues, and ethics” (Micheletti 2003, p. x). To become political consumers, people are assumed to need motivation and adequate information about the social and environmental consequences of products, as well as product ranges giving people the relevant “choices” in their everyday political consumption activities. A large body of literature has taken this as a starting point for exploring how to make food consumption more environmentally sustainable (e.g., Carrigan et al. 2004; Verain et al. 2012; Vermeir and Verbeke 2006).

Yet, a more critical stance is that relying on people making individual decisions on the market based on ethical concerns may result in stratified sub-markets for those who can afford it. From this perspective, it has been suggested that collective action through legal mechanisms and institutions may be a more efficient option for realising sustainable futures. (Paavola 2001.) It has been argued that political consumerism may undermine other political action by substituting the market mechanism for political institutions in solving environmental problems (Jacobsen and Dulsrud 2007; Sørensen 2005). This would mean that instead of public regulation, the solving of environmental problems would be left for market actors, particularly individual consumers. The findings about a correlation between education, income or social status and positive attitudes and activities relating to sustainable food consumption (Haanpää 2007; Onyango et al. 2007; Wier et al. 2008; Zhu et al. 2013; see also Starr 2009) may support the hypothesis of exclusive markets for sustainable consumption. Critical voices have also argued that political consumerism places a heavy burden on individual consumers to solve ethical and environmental questions, and that it is incapable of taking into account the various practical, economic, physical, and moral realities of everyday consumption (Jacobsen and Dulsrud 2007; see also Sørensen 2005; Kjærnes 2012). From this perspective there has been some interest in research on political consumption to investigate whether “political consumers” are less active than others in being involved in more established forms of political participation, such as contacting a politician, being active in a party or association, donating money or signing a petition. The findings suggests that market-based and other modes of political action are more likely to supplement than contradict each other (Micheletti and Stolle 2005; Tobiasen 2005.)

Discourses on “sustainable consumption” seem to be somewhat less charged than political consumption with explicit juxtaposition of individualistic and collectivistic viewpoints. For instance, in current debates on sustainable eating not only ecological concerns but also nutritional and food security aspects of food consumption are on the agenda (e.g., Lang and Barling 2013). This extended approach to sustainable eating, “ecological public health” (Rayner and Lang 2012), argues that in order to advance good eating, attention needs to be paid to how human health and ecosystems interact (see also Duchin 2005; Harland et al. 2012). In social and consumer research, it has been found that consumers’ opinions and activities on sustainable eating are related to broader sets of environmental concerns and values (Fraj and Martinez 2007; Macmillan et al. 2012; Zhu et al. 2013), and that health concerns, alongside environmental issues and animal welfare, are an important reason for consumers to buy, e.g., organic food (e.g., Magnusson et al. 2003; Seyfang 2006). It has also been shown that health-related and ecological concerns often occur simultaneously in consumers’ values (Marchand and Walker 2008; Tobiasen 2005). For instance, Worsley et al. (2014) suggest that people are interested in a variety of cooking-related topics, such as learning about cooking inexpensive, tasty and healthy meals as well as about ways to reduce food waste, using seasonal ingredients and using leftovers in cooking. Dowler et al. (2010) found that people who are involved in alternative food networks – which aim at strengthening the connection between consumers and producers – find pleasure in preparing and eating good food but are also concerned about the environment. There is thus increasing evidence that adopting and learning about pro-environmental food consumption patterns may be associated with a general interest in food and cooking.

The discussion on sustainable eating thus seems to have moved beyond the distinction between private and public virtues in consumption (Micheletti 2003), suggesting instead that ecological motivations are becoming integrated into a wider conception of “proper” eating, incorporating ideas of the importance of food and cooking in everyday life as well as efforts to eat healthily and sustainably. At the same time, not only consumer practices but also supply side and political factors are increasingly emphasized in discourses on sustainability (e.g., Heiskanen et al. 2014; Kjærnes 2012; Wahlen et al. 2012).

Since the early 2000s, the discussion on political consumption has been particularly strong in the Nordic countries (e.g., Boström et al. 2005; Halkier and Holm 2008; Boström and Klintman 2009). The majority of both Danish, Finnish, Norwegian and Swedish citizens tend to be positive towards environmental issues (Franzen and Meyer 2010; Eurobarometer 2011). However, political consumerism is not equally strong in these countries. Swedes seem to be very active as political consumers (Micheletti and Stolle 2005) and Danes are quite active, too (Tobiasen 2005), whereas in Norway political consumerism is less significant than many other European countries (Terragni and Kjærnes 2005) and in Finland the phenomenon has been less systematically studied. In Denmark and Sweden, particularly organic products are prominent and their share of the market is higher than in most other European countries (Schaack et al. 2014). In Finland and Norway, too, governmental targets for increasing the market share of organic products are ambitious (e.g., MAF Finland 2013; MAF Norway 2008). Recently also local food has gained new impetus in all Nordic countries both in regional and Nordic projects and programmes (e.g., the “New Nordic Food Programme”). However, despite a shared cultural and political heritage, there are significant differences in food and consumer policies among the Nordic countries (Kjærnes et al. 2007). The Nordic region thus represents a good case for studying how social background, environmental attitudes, and engagement in food issues influence consumer involvement in sustainable food consumption.

In this article, we focus on eating practices that have been suggested in previous research (Tobler et al. 2011) to be part of the transformation towards ecological sustainability. First, we examine to what extent people in Denmark, Finland, Norway and Sweden act in ways that are considered as environmentally benign habits of eating. What do people do to make their food consumption more sustainable and does the Nordic region represent a homogeneous area in this respect? Second, we ask to what degree sustainable activities are part of a broader set of “proper” practices, as suggested by Lang et al. (Lang and Barling 2013; Rayner and Lang 2012) by analysing the association of sustainable activities to healthy eating and general interest in cooking. Third, we explore whether acting in environmentally conscious ways is positively or negatively correlated to recognition of the need for public regulation, such as information, taxation and legislation. Is there an opposition between taking on responsibility as a consumer and support to public intervention? Fourth, we explore sociodemographic variations in sustainable activities in the four Nordic countries. Are these activities associated with distinctive social positions, indicating sustainable food consumption as a socially stratified phenomenon?

In the following, we first present our data and methods, followed by the results. The results are then examined in relation to earlier studies on sustainable food consumption. In the concluding section, we discuss the need for inclusive policies for sustainable consumption that would enable more

people to engage themselves in sustainable food practices and gradually normalize sustainability in everyday life.

Variables and Methods

The Dependent Variable

Sustainability of food consumption was recorded with questions adopted from Tobler et al. (2011) concerning the consumption of locally produced foods, seasonal fruit and vegetables and organic foods, and avoiding meat, products with excessive packaging, and food products imported by airplane (see Table 11.2. for exact wordings). The respondents were asked “are you doing or planning to do the following things in order to reduce environmental impacts?”, which they could answer by selecting (1) “I am doing this already”, (2) “I would like to do this, and already know how to start”, (3) “I would like to do this, but I do not know how” or (4) “I am not doing this and I am not willing to.” For response option (1) the respondent got two points, for (2) and (3) one point, and for (4) zero points. Summing up the points from each question an *index of sustainability of food practices* (a summated scale variable) with a range from 0 to 12 was constructed. It must be emphasised that the actual environmental impacts of the food-related activities examined here are varied and not easily quantified. In addition, seen from a consumer point of view, the various practices are not directly comparable in terms of required efforts. Still, since the questions included in the index are issues that are prominent in public debates on ecologically sustainable food consumption (Tobler et al. 2011, Duchin 2005), we use them as indicators of the respondents’ engagement and thus of the extent to which sustainable food consumption has developed as a socially shared norm.

Independent Variables

Three explanatory variables on food-related practices and attitudes as well as four sociodemographic variables were included in the analyses. First, a *healthy eating score* based on the frequency of eating vegetables, fruit, and fish and using various types of fat on bread and in cooking was built following Toft et al. (2007). Based on the score, the respondents were classified into three groups with least healthy, medium healthy and most healthy eating habits. Second, *interest in cooking* was originally measured with a five-class variable (1 = applies very well ... 4 = does not apply at all, 5 = don’t know), and for the analysis it was condensed into a dichotomous variable contrasting respondents interested in cooking (values 1 or 2 on the scale) with the rest of the respondents. The third variable was formed using statements on *environmental policies*. The statements were (1) “it is an important task for public authorities to inform the population about the environmental impacts of food stuffs”, (2) “public authorities should not interfere in people’s food habits with regard to their environmental impacts”, (3) “public authorities should regulate the food market through pricing and statutes in order to ensure environmentally friendly foods”, and (4) “taxes and duties on environmentally damaging foods are a good way to advance more environmentally friendly food habits.” Originally the responses were Likert-scale values ranging from 1 (agreement) to 4 (disagreement) and an additional option “I don’t know.” For the analysis,

the "don't know" category was placed in the middle and the variables were recoded to range from 0 to 4 so that the higher the value, the

more positive the attitude (i.e., all responses were reversed except for statement 2). The resulting summated scale variable ranged from 0 to 16.

In addition, we analysed the effects of four sociodemographic variables: gender, age, education and occupational position. *Age* was classified into four 15-year categories (the last category included all respondents over sixty years of age). *Education* was measured with a five-category variable, in which the categories were 1) only basic schooling (maximum of 10 years), 2) vocational schooling, 3) upper secondary school, 4) bachelor level degree, and 5) finished or unfinished master's or higher university level degree. Also *occupational position* consisted of five categories, 1) skilled or unskilled workers, 2) lower or intermediate level employees within administrative and clerical functions, 3) upper level employees with administrative, analytical or professional functions, 4) the selfemployed (including fishermen and farmers, entrepreneurs, and family business workers), and 5) those who could not be assigned to one of these groups, such as students. Respondents who were outside working force at the time of the survey were classified according to their previous occupation.

The distributions of the independent variables are presented in an Annex table.

Analysis

The effect of the independent factors on carrying out sustainable activities was explored by Analysis of Variance (ANOVA) using the statistical package R. First, we looked at the unadjusted effect of each independent variable. Second, in adjusted Model 1, practices relating to healthy eating and attitudes to cooking and environmental policies were included as explanatory variables. In adjusted Model 2, the sociodemographic variables gender, age, education and occupational position were added. The first model was calculated in order to examine the association between sustainable activities and other food-related attitudes and practices. The purpose of the second model was to add the role of the sociodemographic variables into the analyses as well as to investigate whether the associations found in Model 1 change when sociodemographic variables are taken into account. When building the models, the main effects of area of residence (level of urbanisation), type of household and income were tested, too, but these were excluded due to their low explanatory rates. We also tested for interactions between education and age; environmental policy attitudes and age; and education and occupation. Since the interaction terms proved to be statistically insignificant, they were not included in the final models.

In order to compare the association between sustainable activities and the explanatory variables in the Nordic countries, the analyses were carried out separately for each country. The results of the unadjusted effects and the two models are presented as F-coefficients, their significance for each explanatory variable, and parameter estimates (B) for each variable category.

Results

Sustainable Food Consumption Practices

Table 11.1. shows that for any of the six activities, less than half of the respondents in each country reported practicing them already. Apart from buying regional foods and avoiding packaging, the share of respondents already carrying out the activity was at most one in three respondents. The proportion of those who would like to carry out sustainable activities was about the same or higher than the proportion of people already participating in doing them, only meat consumption showing a somewhat diverging pattern. Clear majorities were in favour (doing it already or being willing to) of buying regional or local food and avoiding excessive packaging, both with overall positive attitudes. The majority were also in favour of buying organic food, except in Norway. In Denmark, on the other hand, the share of respondents buying organic foods already exceeded the share of those who would like to, but were not yet doing it. Apart from Norway, the majority were rather favourable towards eating only seasonal fruit and vegetables, although the share of those already doing it was mostly somewhat lower than for the activities described above. Opinions were more divided about avoiding products imported by airplane: Few were doing it already, and more than half of the respondents in Denmark and Norway were not willing to. Finally, opinions on reducing meat consumption were quite divided, and the majority were resistant to limiting their meat eating. Only in Norway did the share of those who were positive towards limiting their meat consumption only just exceed the share of those who resisted.

Table 11.1: Activities of sustainable food consumption by country (%)

<i>Are you doing or planning to do the following things in order to reduce environmental impacts?</i>	Denmark (N = 2060)	Finland (N = 2044)	Norway (N = 2079)	Sweden (N = 2065)	Total (N = 8248)
a) Buy regional (local) food ***					
I am doing this already	38.2	37.8	34.6	45.5	39.0
I would like to do this	37.0	48.0	43.2	41.2	42.4
I am not doing this and I am not willing to	24.8	14.1	22.2	13.3	18.6
Total	100	100	100	100	100
b) Avoid products with excessive packaging ***					
I am doing this already	24.5	44.5	27.4	37.0	33.3
I would like to do this	38.6	37.8	39.3	36.3	38.0
I am not doing this and I am not willing to	36.9	17.7	33.3	26.7	28.7
Total	100	100	100	100	100
c) Buy organic food ***					
I am doing this already	33.9	23.6	17.2	29.5	26.0
I would like to do this	25.1	37.2	30.2	36.7	32.4
I am not doing this and I am not willing to	40.9	39.1	52.5	33.9	41.6
Total	100	100	100	100	100

d) Eat only seasonal fruit and vegetables ***

I am doing this already	26.2	26.3	17.6	21.7	22.9
I would like to do this	32.3	38.7	32.2	44.0	36.8
I am not doing this and I am not willing to	41.6	34.9	50.2	34.3	40.3
Total	100	100	100	100	100

e) Eat meat at most twice a week or little at a time ***

I am doing this already	15.3	21.4	29.1	24.6	22.6
I would like to do this	15.6	21.0	21.1	21.6	19.8
I am not doing this and I am not willing to	69.0	57.7	49.8	53.8	57.5
Total	100	100	100	100	100

f) Avoid food products that were imported by airplane ***

I am doing this already	9.2	12.0	5.3	16.1	10.7
I would like to do this	37.9	47.8	38.4	50.5	43.6
I am not doing this and I am not willing to	52.9	40.2	56.3	33.4	45.7
Total	100	100	100	100	100

($p < 0.05 = *$, $p < 0.01 = **$, $p < 0.001 = ***$)

The results show quite large variation between the four countries. With the exception of meat reduction and avoiding excessive packaging, Norwegian respondents were least engaged. Swedish respondents were overall most positive, the majority already participating or being willing to for all activities except reducing meat consumption. Participation was relatively high also in Finland, particularly as regards avoiding excessive packaging. Danish respondents had quite variable patterns, being more positive than others to organic foods, but very negative towards reducing meat consumption and more negative than others towards avoiding excessive packaging.

The mean of the sustainability index based on the six variables confirms the country variation: It was highest in Sweden (5.8) and second highest in Finland (5.6). For Denmark and Norway, the values were lower (4.8 and 4.7, respectively). The differences between the countries in the index were statistically significant ($p < .05$) based on ANOVA (Dunnet's T3 post hoc test). Pairwise multiple comparisons revealed that the differences were significant except for the ones between Norway and Denmark, and between Finland and Sweden.

Differences between Social Groups

The dependent variable in the analyses was the index indicating participation in sustainable food consumption practices. The results from the ANOVA models for each country are presented in Table 11.2.

Table 11.2: Participation in sustainable activities by country, F(sig.), parameter estimates (B) for independent variables, and adjusted explanatory rates

	Denmark			Finland			Norway			Sweden		
	Unadjusted main effect	Model 1	Model 2	Unadjusted main effect	Model 1	Model 2	Unadjusted main effect	Model 1	Model 2	Unadjusted main effect	Model 1	Model 2
Heathy eating score	52.089***	32.439***	15.775***	28.535***	17.309***	9.122***	17.030***	6.89**	2.152	66.627***	43.001***	25.623***
Least healthy	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Medium	1.27***	0.94***	0.72***	1.03***	0.77***	0.56***	0.80***	0.46**	0.29*	1.65***	1.28***	1.00***
Most healthy	2.16***	1.62***	1.13***	1.43***	0.96**	0.73*	1.14***	0.70**	0.35	2.20***	1.50***	1.03***
Interest in cooking	30.469***	21.826***	25.267***	10.345**	6.553*	9.886**	20.692***	15.65***	19.098***	21.764***	18.004***	15.476***
No / doesn't know	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Yes	0.77***	0.61***	0.65***	0.44**	0.33*	0.40**	0.60***	0.48***	0.53***	0.71	0.59***	0.53***
Environmental policy attitudes	103.630***	90.637***	92.387***	122.910***	111.636***	101.807***	128.460***	117.069***	113.806***	112.180***	97.977***	91.772***
Very negative	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Negative	1.23***	1.07***	1.14***	1.59***	1.47***	1.40***	1.39***	1.26***	1.24***	1.56***	1.44***	1.36***
Rather positive	2.30***	2.13***	2.25***	2.92***	2.79***	2.68***	2.50***	2.32***	2.32***	2.87***	2.67***	2.57***
Very positive	3.69***	3.38***	3.37***	4.11***	3.90***	3.72***	3.83***	3.67***	3.68***	3.84***	3.54***	3.41***
	13.719***		3.697	49.070***		16.492***	23.713***		8.243**	51.883***		17.684***
Gender												
Male	(a)		(a)	(a)		(a)	(a)		(a)	(a)		(a)
Female	0.49***		0.24	0.88***		0.49***	0.60***		0.34**	0.96***		0.52***
	16.943***		14.626***	21.602***		12.240***	13.125***		16.461***	22.209***		18.951***
Age group												
15-29	(a)		(a)	(a)		(a)	(a)		(a)	(a)		(a)
30-44	-0.30		-0.13	-0.31		-0.08	-0.27		0.05	0.07		0.11
45-59	-0.01		0.16	0.29		0.38	-0.05		0.38	0.40		0.62**
60+	0.95***		1.01***	1.06***		0.93***	0.79***		1.15***	1.37***		1.29***
Education (5 class)	10.233***		3.403**	4.183**		0.695	3.509**		1.161	12.242***		3.929**
Basic education	(a)		(a)	(a)		(a)	(a)		(a)	(a)		(a)
Vocational	0.04		-0.06	-0.62***		-0.23	0.12		-0.16	0.66**		0.47*
Upper secondary school	0.16		0.19	-0.30		-0.17	-0.13		-0.34*	-0.32		-0.09
BA level	0.45		0.18	-0.09		-0.16	0.21		-0.16	0.80***		0.42*
MA level or higher	1.20***		0.66**	0.13		0.01	0.58**		-0.09	0.72***		0.46*
Occupational position	6.697***		2.924*	8.277***		2.555*	1.331		1.363	5.761***		0.54
Worker	(a)		(a)	(a)		(a)	(a)		(a)	(a)		(a)
Lower level or intermediate	0.42*		0.00	0.74***		0.39*	0.06		-0.27	0.74***		0.20

Upper level employee	0.89***	0.11	0.71***	0.30	0.31	0.09	0.82**	0.04	
Self-employed	0.63*	0.71**	0.83***	0.57*	0.26	0.09	0.36	0.10	
Other (incl. Students)	-0.02	-0.19	0.09	0.07	-0.18	-0.03	0.29	0.22	
<i>Adjusted R Squared</i>		0.171	0.199		0.174	0.204		0.186	0.223

($p < 0.05 = *$, $p < 0.01 = **$, $p < 0.001 = ***$)

The results show that the attitudinal and practice-related variables were all significantly associated with sustainable activities in all models. First, healthy eating was positively associated with sustainable activities. Those with medium or high healthy eating scores more often acted sustainably in Denmark, Finland, and Sweden. The connection was similar, but less pronounced in Norway, possibly because of Norwegians' generally lower engagement in sustainable activities. Second, in all four countries also interest in cooking was positively connected to sustainable activities. Third, attitudes towards environmental policy proved to be the independent variable with the greatest relative importance in explaining sustainable food consumption practices. Those with more positive attitudes towards environmental policies were more engaged in sustainable food consumption activities in all four countries.

The unadjusted main effects of the association between sociodemographic indicators and sustainable activities varied between modest to substantial by country. The clearest finding was that women and the elderly were more engaged in sustainable activities than men and the young. A gender difference was found in all countries, but the difference between genders was larger in Sweden and Finland compared to Denmark and Norway. The unadjusted effects of education and occupational position were more varied. There were some educational differences in all countries, but also variations in terms of which groups differed from the reference category. In all countries except Finland, those with master level education stood out as being more active than those with only basic education. In Finland, those with vocational schooling were less active, whereas in Sweden those with vocational or bachelor level education were more active than those with basic schooling. As for occupational position, upper level or lower level or intermediate employees were more active in sustainable activities than workers in all countries except Norway. In Denmark and Finland, also the self-employed showed more engagement.

When the attitudinal and practice-related variables and background variables were all included in Model 2, the effects of healthy eating, interest in cooking and environmental policy attitudes remained. The only exception was the effect of healthy eating score in Norway, which was no longer significant in Model 2. Also the effects of sociodemographic variables mostly remained but weakened in Model 2. Particularly the effects of gender, education and occupational position diminished in Model 2 compared to their unadjusted effects, suggesting that they influence sustainable food consumption also indirectly, via the attitudinal and practice-related variables. The effect of education was generally weakened, and it was now significant only in Denmark and Sweden. The effect of occupational status disappeared when controlled for other variables in Norway and Sweden. In Denmark the self-employed and in Finland the self-employed and lower level or intermediate employees differed from workers.

Model 1 could explain 17.1–18.6% of the variation in the dependent variable. In Model 2, the explanatory power increased to 19.9–22.3%, which can be regarded as satisfactory for a social scientific study. It should be noted, however, that the addition of sociodemographic variables in Model 2 increased the share of variance explained only modestly compared to Model 1.

Discussion

Our study of sustainable food consumption practices in Denmark, Finland, Norway and Sweden allows a unique comparative perspective, since most of the earlier research on sustainable eating has focused on one single country. Before discussing the results in detail, some limitations of the data should be noted. The formulation of the question on sustainable activities aimed at directing the respondents' attention to ecological considerations when responding and thinking about their current habits as well as readiness to carry out the various activities. However, people may have responded to the question of what they are doing irrespective of the particular reasons they had for their action (cf. Tobler et al. 2011). Consumers generally have multiple reasons for eating the way they do (e.g., Halkier 2010), and it may well be that people participate in sustainable food consumption practices partly (or even wholly) because of reasons other than environmental concerns. They may buy seasonal or local foods for better taste or organic foods for health (Wier et al. 2008) or limit their meat consumption because of concern for animal welfare (Latvala et al. 2012) or high prices. On one hand, this reduces the validity of the indicators, but, on the other, it can be argued that these activities are pro-environmental no matter why people choose to perform them. These ambiguities demonstrate the complexity of everyday food practices. Buying, preparing and eating food involve a whole range of considerations, where there are no explicit order of priorities, but instead mostly implicit compromises between different values and wishes (see, e.g., Halkier 2010; Holm and Kristensen 2012). Our results, too, show that endeavours for sustainable food consumption are indeed intermingled with other food-related considerations.

Our first research question addressed the type and extent of participation in sustainable activities. Overall, for the six activities enquired into, the responses were somewhat differently distributed between already participating, being willing to participate, and not participating nor being willing to. However, clear majorities of the respondents were positive towards engaging themselves in more environmentally sustainable activities and roughly half of these were doing it already. While buying local food and avoiding excessive packaging were the most popular activities, reducing meat consumption was the least popular. The activities that were already most actively carried out seem quite consensual and not very demanding in everyday life. Local food has been supported by marketing and political campaigns, and avoiding excessive packaging may be connected to the widespread scepticism towards processed food, not only to eschewing waste. The more unpopular activities, on the other hand, are more demanding to carry out: Organic food is more expensive; meat has a high cultural status in Nordic food cultures and represents a significant agricultural sector; and avoiding food imported by airplane or eating only seasonal fruit and vegetables in the harsh northern climate may not comply well with expectations of a varied diet. In addition, the high shares of those who were not yet active but would consider participating in the suggested activities may reflect ambiguities in issues such as availability and pricing, difficulties in incorporating

sustainability concerns into daily eating habits, not being aware of how the food is procured, or simply not having paid attention to on-going discourses on sustainability.

The overall level of engagement varied significantly across the countries. In general, Swedes were most active already or willing to carry out various sustainable activities. This is in line with previous studies showing that Swedes are active political consumers (Micheletti and Stolle 2005; Stolle et al. 2005). Norwegians were the least active, also this in accordance with earlier observations. Norwegians have been found to generally put less emphasis on consumer responsibility and fewer Norwegians think they have influence as food consumers than consumers in many other European countries (Kjærnes et al. 2007). Also the preferred types of activities varied somewhat across countries. In Denmark, Norway and Sweden the most popular among the six activities was buying local food (cf. Hall and Gossling 2013), while Finns were more active in avoiding excessive packaging. Indeed, preliminary findings by Katajajuuri and Hartikainen (2013) suggest that in Finland, packaging is one of the top concerns for consumers as regards sustainable food consumption (cf. Lea and Worsley 2008). These results suggest that there was considerable willingness across the four countries to make food consumption more sustainable, but not widespread consensus about what particular activities that implies.

Second, we asked to what degree sustainable activities are part of a broader set of “proper” practices, involving also healthy eating and interest in cooking. Both had a strong positive connection to sustainable activities in all four countries. This corroborates earlier findings suggesting that sustainable food consumption is linked with health concerns (e.g., Magnusson et al. 2003; Seyfang 2006) and supports the view that advancing one’s own health does not necessarily contradict advancing the common good, such as ecological values (Marchand and Walker 2008; Tobiasen 2005). Furthermore, an interest in cooking – indicating an active relationship with food – was related to participation in sustainable practices (cf. Dowler et al. 2010; Worsley et al. 2014). Based on the results, being involved with food and cooking and paying attention to the wider impacts of food production and consumption are part of the same realm in which food is consequential in terms of both individuals and society. These findings suggest that people don’t necessarily see a contradiction between “private” and “public virtues” (Micheletti 2003) in consumption; these concerns may be interwoven and mutually re-enforcing rather than conflicting. It is also possible that interest in cooking and sustainable activities are related because sustainable food practices are not yet very actively carried out in everyday life: being active requires quite some deliberation and effort, which is more likely in case of a higher level of engagement with food.

Third, being active oneself as a food consumer and supporting institutional measures and political interventions for advancing sustainable food production and consumption do not seem to be opposed, but instead strongly correlated. We found a systematic pattern in all four countries: People who supported regulatory measures were more likely to participate in sustainable practices themselves. This supports earlier studies that have found opinions and activities on sustainable eating to be related to broader sets of environmental concerns and values (Fraj and Martinez 2007; Macmillan et al. 2012; Zhu et al. 2013) and is in line with findings about political consumers being active in other modes of political participation, too (Micheletti and Stolle 2005; Tobiasen 2005). In terms of the discussion on whether political consumerism undermines other political actions,

redirecting attention from political institutions to the market mechanism in solving environmental problems (e.g., Jacobsen and Dulsrud 2007; Sørensen 2005), our results thus suggest that from the perspective of consumption, people don't see a contradiction between the two realms or choose one over the other. Rather, engagement in sustainable food consumption is related to demands for political interventions (cf. Gotlieb and Wells 2012; Stolle et al. 2005).

Our fourth question concerned sociodemographic differences and sustainable practices as a matter of social stratification. Across the four countries, women and elderly people were more eager to participate in sustainable food consumption practices. These results corroborate earlier research (Haanpää 2007; Onyango et al. 2007; Wier et al. 2008; Tobler et al. 2011). Middle-aged and elderly women are generally found to be more engaged in food related issues, pointing to food consumption practices as an arena where gender roles are still of great significance. It is not possible through our material to find out whether the differences between age groups are a matter of experience generated through the different phases of life or whether our findings instead reflect the orientations of different generations. The result of older people being most active in adopting sustainable practices may be related not only to ecological values but also frugality and experiences and skills learned during less affluent times in the past (cf. Evans 2011). Should this be so, it is highly uncertain whether today's young people in the wealthy Nordic countries will in the future engage in sustainable consumption through food-related practices.

There is some indication in earlier research that people with high education and an upper middle class background may have better opportunities to maintain sustainable practices consumption (Haanpää 2007; Onyango et al. 2007; Wier et al. 2008; Zhu et al. 2013). Such observations would suggest that sustainable practices have become a matter of social distinction and/or that they require economic and other resources that are unevenly distributed in the population. Our results indicate that occupational status and educational level are not very strong factors in sustainable food consumption practices in the relatively egalitarian Nordic countries, and they play somewhat different roles in the various national contexts. The significance of socioeconomic factors may well have been more discernible had the particular activities been analysed separately, such as buying of organic foods or reducing meat eating. We may also speculate whether the relatively weak role of education and occupation suggest that different sustainable food consumption practices are prevalent in different social groups, or whether it indicates that the Nordic countries are still relatively egalitarian and that social status related differences are small enough to enable people in all social strata to engage with some sustainable practices. Either way, the results suggest that in general, sustainable activities are not limited to particular socioeconomic groups in the Nordic countries.

Conclusion

The default idea of political consumption is that consumer actions on the market are deliberate and involve a political end: Making deliberate choices among products and services, joining campaigns, boycotts and "buycotts" and influencing other market actors through, for instance, internet and the social media. This idea does not easily incorporate the more invisible and privatised routine actions that dominate everyday lives, producing less hype and public bustle, but

which, nevertheless, can be seen as part of everyday efforts of making a difference. While significant in terms of environmental effects, buying food, cooking and eating are embedded in highly mundane everyday routines. Sustainable food consumption practices described in this article are indeed a form of everyday political consumption involving norms and actions relating to environmental or social impacts of food production and consumption.

Our results indicate that the majority of citizens in the Nordic countries are positive to making sustainable changes in their food consumption, but at the same time, these practices are not very established. However, the relatively high percentages of people who were not yet active but nevertheless willing to carry out some of the proposed activities suggest that there are emerging social norms and expectations towards making food and eating more sustainable. Furthermore, the results show that sustainable activities are not isolated from other food-related practices, values and meanings; instead they are inter-connected with aspects of eating relating to both individual and societal good, such as valuing healthy food and environmental policies.

When developing policies to enhance sustainable food consumption practices, the multitude of meanings and practices relating to food and eating needs to be taken into account. As Kjærnes (2010; see also Valor 2008) has noted, we cannot expect consumers to engage themselves in sustainable eating without recognising other aspects of consumption, such as care, sociability, pleasure, and social equality and welfare. Sustainable food consumption should ideally incorporate all these aspects and be possible for all social groups. It is also noteworthy that people in the Nordic countries do not seem to make an opposition between acting themselves and supporting strong environmental policies. People's responsibility-taking as consumers coexists with expectations that also other societal actors take on responsibility for advancing sustainability (see, e.g. Heiskanen et al. 2014). This might imply, for example, that consumers who reduce their meat eating for ecological reasons expect that also supply side actors act for diminishing the environmental impacts of animal production and that political measures are taken to encourage them to do so.

Finally, the observed variations in the popularity of various sustainable activities across the Nordic countries suggest that discourses on sustainable food consumption are not the same everywhere, neither in terms of intensity nor what aspects are being emphasised. Consumers' and citizens' mobilization in sustainable consumption takes shape in the context of societal, economic and political developments on both local, national and international levels. Earlier research (Kjærnes et al. 2007) has found that specific national configurations of discourses, markets and policies significantly affect what people think and do as food consumers. Further research is needed for a better understanding of how such configurations facilitate sustainable food consumption. Environmental problems are increasingly framed in dialogues between the state, market and citizens (Klintman 2009), and we need to know more about how people as citizens and consumers can influence such dialogues in various social and political contexts. Research is also needed on societal efforts which aim at mobilizing ordinary people and gradually normalizing sustainable practices in everyday life (see, e.g., Wahlen et al. 2012). Such insight might facilitate a wider mobilization for what we could term *sustainable culinary cultures* involving production and distribution as well as everyday patterns of buying, cooking and eating food. Considering the scale of the environmental challenges lying ahead, a transition towards a more encompassing vision of cultural changes in food production and consumption is indeed necessary.

Annex table. The distributions of the independent variables in the unweighted and weighted data (%) by country.

	Denmark		Finland		Norway		Sweden	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Heathy eating score								
Least healthy	19.7	23.8	23.7	27.8	18.0	21.9	25.0	27.0
Medium	64.7	63.7	70.4	67.5	69.6	67.8	69.6	67.9
Most healthy	15.5	12.5	5.9	4.7	12.4	10.3	5.4	5.1
Total (N)	100.0 (2007)	100.0 (1985)	100.0 (1969)	100.0 (1960)	100.0 (2034)	100.0 (2032)	100.0 (2029)	100.0 (2023)
Interest in cooking								
No / doesn't know	32.2	34.4	30.3	30.1	32.2	31.8	26.4	27.1
Yes	67.8	65.6	69.7	69.9	67.8	68.2	73.6	72.9
Total (N)	100.0 (2040)	100.0 (2038)	100.0 (2016)	100.0 (2003)	100.0 (2040)	100.0 (2044)	100.0 (2053)	100.0 (2052)
Environmental policy attitudes								
Very negative	12.9	13.9	8.2	8.7	12.4	13.0	10.0	10.7
Negative	28.3	29.8	29.4	31.8	26.8	31.8	32.6	33.6
Rather positive	39.4	40.7	46.0	44.8	39.6	39.7	37.1	36.7
Very positive	19.5	15.6	16.3	14.7	21.2	15.5	20.2	19.1
Total (N)	100.0 (2060)	100.0 (2060)	100.0 (2044)	100.0 (2044)	100.0 (2079)	100.0 (2079)	100.0 (2065)	100.0 (2065)
Gender								
Male	47.6	49.9	46.7	48.6	48.6	50.1	48.3	50.3
Female	52.4	50.1	53.3	51.4	51.4	49.9	51.7	49.7
Total (N)	100.0 (2060)	100.0 (2060)	100.0 (2044)	100.0 (2044)	100.0 (2079)	100.0 (2079)	100.0 (2065)	100.0 (2065)
Age group								
15-29	17.8	20.3	16.1	15.9	14.3	18.0	15.1	15.4
30-44	27.6	24.5	31.2	27.7	29.1	29.1	31.0	31.5
45-59	29.8	30.5	31.2	32.4	30.8	31.7	26.5	27.2
60+	24.8	24.7	21.5	24.1	25.7	21.2	27.4	25.9
Total (N)	100.0 (2060)	100.0 (2060)	100.0 (2044)	100.0 (2044)	100.0 (2079)	100.0 (2079)	100.0 (2065)	100.0 (2065)
Education (5 class)								
Basic education	13.8	34.1	10.6	33.3	10.4	31.7	16.6	24.9
Vocational	17.8	26.7	17.5	18.8	11.6	17.7	9.8	11.1
Upper secondary school	9.6	13.9	20.0	20.7	15.8	22.5	29.7	32.1
BA level	22.7	9.8	20.6	10.6	27.7	12.3	18.4	13.2
MA level or higher	36.1	15.5	31.4	16.6	34.5	15.8	25.5	18.7
Total (N)	100.0 (2060)	100.0 (2060)	100.0 (2044)	100.0 (2044)	100.0 (2079)	100.0 (2079)	100.0 (2065)	100.0 (2065)
Occupational position								
Worker	22.4	32.1	29.5	37.9	31.8	40.7	23.8	26.5
Lower level or intermediate	31.7	27.3	25.2	24.6	27.7	24.7	40.5	38.9
Upper level employee	25.8	17.1	27.2	18.2	22.7	13.8	12.5	10.2
Self-employed	7.4	8.9	7.8	8.4	9.7	9.7	13.8	14.5
Other (incl. Students)	12.6	14.8	10.3	10.8	8.1	11.2	9.3	10.0
Total (N)	100.0 (2060)	100.0 (2060)	100.0 (2044)	100.0 (2044)	100.0 (2079)	100.0 (2079)	100.0 (2065)	100.0 (2065)