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4. The social context and conduct of eating

Lotte Holm, Drude Lauridsen, Thomas Bøker Lund, Jukka Gronow, Mari Niva, and Johanna Mäkelä

Eating is a routinized activity embedded in the flow of activities, events and relations making up everyday life. It is influenced by the broader social organization of time and space in society and its institutional arrangements, and it is regulated by norms and conventions which vary with social and cultural context. Thus, the study of eating patterns is an entry point to the wider study of the social organization of daily life.

Theoretical background

There is a common sociological assumption, often repeated in analyses of our times, that our cultures are becoming gradually de-traditionalized and individualized (Giddens, 1990; Heelas, Lash, & Morris, 1996), and that social norms of behavior – or ‘etiquette’ – are less formal than they once were (Wouters, 2007). In connection with food and eating the concept of *gastro-anomy* (Fischler, 1988b; Fischler, 2011) summarizes the idea that eating patterns have become irregular and individualized, and that cultural norms are dissolving. In discussions of modernization this development is often welcomed on the grounds that it fosters the freedom of the individual and enlarges the cultural space of human action (Wouters, 2007). However, where food and meals are concerned, the development is often associated with fear of loss of social cohesion (Andersen, 1997; Mennell, Murcott, & van Otterloo, 1992; Fischler, 2011).

Eating is an important operator of social life and a primary social function (Fischler, 2011). In private households meals have been described as the medium by which families are created and recreated on a daily basis (DeVault, 1991; Jackson, 2009; Julier, 2013), and family meals are seen as important arenas in which children are socialized into central cultural norms and values (Ochs & Shohet, 2006; Fischler, 2011). In the social world beyond private households meals are events, which organize social groups through in- and exclusions and make social equality or hierarchy manifest (Douglas & Gross, 1981). It is often hypothesized that, in postindustrial societies, eating has become more individualized and flexible, and that eating patterns have become irregular and destructured (Falk, 1994; Mintz, 1996; Whit, 1995). It is inferred that more eating takes place alone, a development which has been linked to concerns about the disruption of family meals and family life in general (Murcott, 1997; Jackson, 2009).

But how we eat, where, when and with whom, is influenced by the social organization of work and family life, and the physical locality of private homes and workplaces, as well as the rhythm and organization of the workday. The daily organization of eating also depends on institutional and practical arrangements in society, such as the size and composition of households, public catering at work places and educational institutions and the accessibility of commercial venues for eating out. It has been suggested that the home

may no longer be the primary location for meals, as eating is increasingly taking place in public places and commercial premises such as restaurants, cafés, fastfood outlets, and so forth, and in public welfare institutions such as canteens (Mandemakers & Roeters, 2015; Cheng et al., 2007; Dinkins, 1992; Dumangan & Hackett, 1995; Mogelonsky, 1998; Julier, 2013). It follows that we might expect a decline in eating at home in the Nordic countries, and a rise in eating out.

By tradition, eating is subject to strong normative regulation: in all societies and communities models of proper eating exist, not only with regard to how foods should be ordered, in terms of combination and sequence (Douglas, 1975b; Murcott, 1982; Fischler, 1988a), but also regarding the very conduct of eating. According to the theory of informalization, manners have become less formal and more lenient in the course of the 20th century (Wouters, 2007).

Following this theory we could presume that rules of good eating conduct, or table manners, are not as strict as they once were and allow for more individual variation and heterogeneous behavior. It has been suggested that the meal is losing its significance as an event in its own right, but increasingly takes place simultaneously with other activities (Gemming, Doherty, Utter, Shields & Ni Mhurchu, 2015; Bugge & Døving, 2000; Senauer, Asp & Kinsey, 1991; Andersen, 1997).

Empirical data, which provide systematic evidence for changes over time in the localization and conduct of eating, are rare. Time-use data that trends with regard to time spent eating in the home and outside the home are not uniform across countries (Warde, Cheng, Olsen & Southerton, 2007; Cheng et al., 2007; Mestdag & Glorieux, 2009; Mestdag & Vandeweyer, 2005; Mestdag, 2005; Statistics Sweden, 2003; Bonke, 2002). Evidently, time-use analyses address very few aspects of eating. For a more composite picture of the daily eating practices of populations a more comprehensive analysis of various aspects of the organization of eating is required. Our study is a contribution to this kind of analysis.

Aim of the analysis

We aim to analyze in some detail changes in the conduct of eating in the Nordic countries between the late 1990s and the early 2010s. This was a period in which discussions of a possible destructuring of meal patterns intensified. It is an empirical question whether the discussed changes did actually occur during this relatively short period. With the debates described above in mind, we ask whether, over the fifteen year period, signs can be identified which suggest that eating has become delocalized from private households, individualized in terms of more eating alone occurring, and informalized, with the arrival of more informal and lenient codes of conduct around eating.

Analysis and data

We identified features that were distinctive of meals in 2012 as compared with 1997, and we asked what socio-demographic background factors, if any, could be called upon to explain the changes. We also asked whether and how the changes we identified had affected each of the daily meals (breakfasts, lunches, dinners and in-betweens) by assessing how typical the practices we focused on were for these meal events in 2012.

We addressed our overall research interest by asking specifically about what changes, if any, could be identified in the following domains: localization of eating; social company in which eating takes place; and the conduct of meals, by which we meant seating arrangements, activities occurring alongside eating and the duration of eating events.

The main part of our questionnaire had enquiries about the respondents' eating events the day before the interview. The questions focused on the time of eating and the nature of the meals also on the social context and conduct of the meal, including where the eating took place, in what social company, the duration and the seating arrangements for the eating event, and, finally, whether other activities went on while eating was taking place (see chapter 1). In the 2012 study, respondents were also asked to categorize each eating event as one of: breakfast, lunch, dinner, late evening meal, in-between, or other. In the 1997 survey questions about social context and the conduct of eating events were asked for all hot-food events, but only for those cold-food events in which the respondents reported having had more than one food or drink item. We therefore excluded events from the analysis in which only one (cold) food or only one drink was taken. In 1997 there was a technical problem with the filters in the Finnish questionnaire, and as a result the contextual questions were posed only for eating events in which hot food was eaten. Thus in most analyses of the 1997 data Finland had to be excluded; in these analyses the sample including only the other three countries was 3596 in 1997 and 6155 in 2012. Further, in the regression analyses respondents with missing socio-demographic data were removed. This reduced the sample sizes to 3143 in 1997 and 5376 in 2012. (See online supplementary material for details on sample selection flow).

The central measures we employed to examine trends in delocalization, individualization, and informalization were based on five questions, all of which were put after the time and content of each eating event had been registered. These questions focused on the following themes: place of the eating event (delocalization), social context (individualization), duration of the event (informalization), activities while eating (informalization), and seating arrangements (informalization). Details of the response options offered to respondents can be seen in Table 1.

The reported number of eating events differed between individuals (Lund & Gronow, 2014), and this needed to be taken into account in order to obtain a comparative metric across respondents (in e.g. propensity to eat solitary meals, and propensity to watch TV while eating). We therefore chose to work with *relative proportions* instead of absolute numbers. To do this, we computed the number of times each respondent reported the activity in question. These counts were then translated into proportional measures by dividing them with the person's total number of meals eaten during the day.

In the analysis, in an initial effort to identify the largest changes, we first outlined descriptive statistics (in average percentages) for all five measures in 1997 and 2012. We did so in a relatively explorative manner, and all of the original response options offered to the respondents were retained. Following this, the measures for which changes across time were detected were examined in more detail. More specifically, we set out to examine which of the socio-demographic factors, if any, could explain the identified changes in eating alone, eating short meals, eating somewhere other than at a kitchen/dining table, and eating while watching TV. These four measures were recoded from proportions (as described in the previous paragraph) to dichotomous variables (see Table 2 for details) and then used as dependent variables in a series of logistic regression analyses. In addition to the year variable, the following variables were inserted into the regression analysis as

(main effects) independent variables: gender, age, education (low, medium, high), social class (working class, intermediate, salariat (Rose, Harrison & Pevalin, 2007)), household type (cohabitant, living alone), occupational status (working/student, retired, unemployed or homemaker), and whether the eating events reported were from a weekday (Monday-Friday) or a weekend day (Saturday/Sunday). We then entered interactions effects between year and all background variables. The interaction effects were entered one by one into the regression models. For each of these, we examined whether the omnibus likelihood ratio test of the model with interaction effect was better than the main effects model (at the 0.05 level of significance). If this was the case, we then examined whether the main effect from the year variable was altered (in the direction of the effect, from a significant to an insignificant effect, or vice versa). We report likelihood ratio test of the interaction model where both of these conditions are met. All of the analyses were conducted and outlined separately for each of the three countries included.

Since, in 2012, new response options to the question about parallel activities were added (using a computer and using tablet, smartphone, or similar device), we also decided to examine the sociodemographic predictors of these activities. We modeled this analysis using the main effects variables that are described above (except for the year variable).

Plausibly, the social implications and significance of eating alone, or while using a computer, tablet or smartphone, or eating very fast may depend on the meal event in question (e.g. dinner or midmorning snack). In order to examine how these key practices were related to different meal events, we turned to logistic generalized estimating equations (GEEs). These account for the correlated nature of the data (the data was correlated because each respondent is represented with several observations in the data, i.e. all eating episodes during the day). Five GEEs were conducted. The dependent variables were: (1) using a pc, tablet, or smartphone, (2) watching TV, (3) not eating at kitchen/dinner table, (4) eating a short meal (<10 minutes), and (5) eating alone. Meal event, age, and whether the respondent lived alone, were used as explanatory variables. The last two sociodemographic factors were included as main effect control variables (along with their interaction effects: age*living alone) in order to rule out the possibility that they accounted for differences observed. Based on the predicted probabilities calculated from the logistic GEEs, propensities to perform practices (1)–(5) were displayed graphically for each kind of eating event. This analysis could only be conducted on the 2012 data. It was conducted separately for each country, and Finland was included in this analysis.

All analyses were conducted using IBM SPSS Statistics version 21 and 22.

Results

Changes between 1997 and 2012 in three Nordic countries

First, we turn to the question of change. Had the place and social context of eating changed over this period of 15 years, and could other changes in the ways that Nordic peoples eat be identified? As we explained earlier, we excluded Finland from the analysis here because we lacked the necessary data. Table 1 presents the findings for Denmark, Norway and Sweden.

Table 4.1: Average percentages of social context and commensality of meals for respondents 1997 and 2012 in Denmark, Norway and Sweden

	DENMARK				NORWAY				SWEDEN							
	1997		2012		1997		2012		1997		2012					
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D				
LOCATION ^a																
Home	75	(29)	71	(31)			74	(28)	72	(29)			73	(29)	72	(29)
Work/school	12	(21)	16	(24)			15	(21)	15	(22)			14	(22)	14	(22)
Someone else's	6	(17)	6	(17)			4	(14)	5	(14)			6	(17)	5	(14)
Cafe/restaurant	2	(10)	3	(12)			2	(10)	3	(11)			5	(13)	6	(14)
Other	3	(12)	4	(12)			4	(14)	5	(15)			2	(8)	4	(13)
n	1183		2042				1170		2061				1243		2052	
COMPANY																
Alone	33	(36)	38	(34)			36	(35)	41	(32)			37	(35)	36	(34)
Family	50	(39)	43	(36)			43	(37)	42	(35)			41	(38)	46	(38)
Friends	8	(21)	7	(18)			7	(18)	6	(16)			9	(20)	7	(18)
Colleagues	10	(20)	12	(21)			12	(20)	11	(20)			13	(22)	13	(21)
Others	1	(8)	3	(11)			2	(10)	2	(11)			1	(8)	2	(11)
n	1183		2042				1170		2061				1243		2052	
DURATION																
<10 min		11	(20)	22	(25)		14	(22)	26	(27)			15	(23)	15	(22)
10-20 min		29	(29)	37	(29)		41	(32)	39	(29)			37	(28)	41	(30)
21-30 min		29	(27)	25	(25)		28	(28)	22	(24)			26	(27)	27	(27)
31-40 min		10	(18)	9	(17)		8	(17)	8	(16)			8	(16)	10	(19)
>40 min		21	(27)	7	(16)		9	(19)	5	(13)			14	(22)	7	(15)
n		1183		2042			1170		2061				1243		2052	
ACTIVITIES ^{abc}																
TV		21	(30)	36	(36)		26	(31)	35	(35)			22	(30)	31	(36)
Radio		26	(33)	14	(27)		21	(31)	12	(25)			22	(32)	10	(24)
Reading		12	(23)	12	(23)		10	(23)	14	(25)			18	(26)	18	(28)
No activities		44	(38)	33	(36)		46	(38)	34	(35)			39	(37)	36	(36)

SEATING ARRANGEMENTS^{ac}

Kitchen/dining table	72	(34)	58	(39)	65	(36)	51	(38)	72	(34)	63	(38)
Coffee/sofa tables	23	(32)	30	(36)	31	(35)	40	(37)	19	(29)	28	(36)
Elsewhere	3	(12)	10	(23)	2	(11)	5	(17)	4	(14)	7	(20)
Did not sit	3	(12)	3	(11)	2	(12)	4	(14)	1	(6)	2	(9)
n	1131		1924		1126		1957		1194		1961	

Note: Where respondents answered “don’t know” they are registered as missing.

^a Multiple response option. ^b Differences with regard to categories in 1997 and 2012: In 2012 respondents were also asked whether they used computers/smart devices. ^c Variables were only measured for meals eaten in the home. Respondents with no meals at home were omitted from this part of the analysis.

The table (4.1.) shows that there had been considerable stability with respect to where Nordic peoples eat. Compared with data from the 1997 survey, the 2012 data showed a small decrease in home eating, but in general the changes in localization of eating were minimal. The average percentage of meals eaten at home varied between 71% and 75% in both years, and the share of meals at work or in school between 12% and 16%. In 2012 almost three quarters of all meals took place at home, with next most common location being the workplace or in school.

With respect to social context, some changes had taken place between 1997 and 2012, but they were not uniform across the three countries: whereas eating alone increased in Denmark and Norway (by 5 percentage points) this was not the case in Sweden. Family eating decreased in Denmark (by 7 percentage points), was stable in Norway and increased in Sweden (by 5 percentage points). As a result of these changes the three countries were actually more similar in 2012 than they had been in 1997. In 2012 between 42% and 46% of all meals were eaten with the family, a little more than one third in solitude, and between 11% and 13% were eaten with colleagues. Meals eaten with friends were less frequent (6-7%).

The duration of eating was not stable over the fifteen years. Meals became shorter in Denmark and Norway, where the proportion of very short meals (<10 minutes) increased by 11-12 percentage points. This was not the case in Sweden, where the proportion of very short meals was markedly smaller in 2012 than in the other countries. In all countries long meals (>40 minutes) decreased over the period, and in Denmark, where such meals were relatively frequent in 1997, they decreased markedly from 21% of meals to 7% and were in line with the other two countries in 2012. In 2012 the most frequent duration of meals was 10-20 minutes. In Norway short meals of less than 10 minutes came next; in the other countries 21-30 minutes was the second most common meal duration.

The data in Table 1 show that meals with no parallel activities became less frequent over the study period, most markedly in Denmark and Norway, where they declined by 11 and 12 percentage points, respectively. In all three countries TV meals increased considerably (by between 9 and 15 percentage points) whilst meals eaten while listening to the radio dropped almost equally (by between 9 and 12

percentage points). In 2012 eating with no parallel activities and eating while watching TV each comprised around one third of events, while reading and listening to the radio on average happened at 10-14% percent of meals, except in Sweden, where reading was more prevalent (on average 18% of meals). Computers, tablets and smartphones represent a type of activity not included in the 1997 study, and it was apparent from the 2012 data that while this type of activity was now quite common, it was still less prevalent than watching TV while eating.

Between 1997 and 2012, eating at dining tables declined in all three countries by between 9 and 14 percentage points, while eating at coffee and sofa tables went up by 7 to 9 percentage points. Sitting 'elsewhere' was not very common, but since 1997 it had tripled in Denmark, doubled in Norway and almost doubled in Sweden. In 2012 more than half of meals at home took place at a dining table (51-63%). But eating while sitting on the sofa and at coffee tables was prevalent too: between 28% and 40% of meals took place there.

Overall, Table 4.1. shows that over the period 1997–2012 it became more common to eat alone (except for Sweden), to have meals of a very short duration (except for Sweden), to eat while watching television and less common to eat at a dining table. In addition, eating while using mobile devices was quite frequent in 2012. All of these changes may indicate processes of individualization and informalization. Eating alone self-evidently signals less social company at meals, while the short, TV- or meals not eaten at the dining table can be read as signs of meals becoming less formal. In the following we ask whether the changes we identified took place in all population groups, or only in some.

Who did what?

In order to find out whether the changes between 1997 and 2012 can be explained by sociodemographic factors, we conducted regression analyses for four variables which indicated change between 1997 and 2012 and dichotomized them as shown in Table 4.2.

Table 4.2: Meal characteristics: Dependent variables across 1997 and 2012 in Denmark, Norway and Sweden

		DENMARK				NORWAY				SWEDEN			
		1997		2012		1997		2012		1997		2012	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Propensity to eat meals alone (of all meals ¹)	Few (below 2/3)	833	84,4	1478	81,6	854	82,8	1469	81,9	902	80,2	1489	84
	Many (2/3 and above)	154	15,6	333	18,4	178	17,2	324	18,1	222	19,8	283	16
	Total	987	100	1811	100	1032	100	1793	100	1124	100	1772	100
		Sig.				NS				NS			
Proportion of meals under 10 minutes (all meals ¹)	None	722	73,2	862	47,6	664	64,3	781	43,6	684	60,9	1099	
	Had meals under 10 minutes	265	26,8	949	52,4	368	35,7	1012	56,4	440	39,1	673	38
	Total	987	100	1811	100	1032	100	1793	100	1124	100	1772	100
		Sig.				***				***			
TV meal at home ²	None	516	54,5	688	40,2		49	633	37,1	594	55,2	812	48
	Did eat with TV	430	45,5	1022	59,8		51	1071	62,9	483	44,8	880	52
	Total	946	100	1710	100		100	1704	100	1077	100	1692	100
		Sig.				***				***			
		74				489				71			
						508				997			

Propensity to eat meals Few (below 2/3) 806 85 1267 814 82 1213 940 87 1335 somewhere other than at Many (2/3 and															
above) 2															
491	29	137	140	15	13	443	26	183	18						
home	Total	946	100	1710	100	997	100	1704	100	1077	100	1692	100		
	Sig.	***				***				***					
Proportion of computer	None	-	-	75,1	1285	-	73,1	-	78						
1245	-	-	1320	meals at home (2012)				Had computer							
	meals														
	Total	1710	100	1704	100	1692	100								
-		-	425	24,9	-	-	459	26,9	-	-	372	22			

Test across years: χ^2 : $p < 0,001 = ***$, $p < 0,01 = **$, $p < 0,05 = *$, $p \geq 0,05 =$ not significant. ¹N for meals alone and duration: only respondents that recorded answers on variables used in the following regressions. ²N for TV and computer etc.: respondents who had at least one meal at home and recorded answers on variables used in the following regressions

Table 4.3. reports the four regression analyses. The analyses suggested that the increases in short meals (Denmark and Norway), eating while watching television, and eating somewhere other than at the kitchen/dinner table, was a general change in the populations' practices, and not exclusive to certain subgroups, since the year variables remained significant when the effect of sociodemographic factors was taken into account. This was also the case regarding eating alone in Denmark. However, patterns were more complex with respect to this in Norway and Sweden. Here, the slightly higher propensity to eat alone in Norway in 2012 (see Table 1) was explained by an increase among the employed/students and the unemployed/homemakers (cf. the interaction effect between employment status*year). In Sweden, there was a clear interaction effect between age*year, where the three youngest age brackets in particular increased their probability of eating alone from 1997 to 2012. Despite this, we still observe a slight general decrease in the probability of eating alone in 2012 in Sweden. This is explained by a lower proportion of single households in the 2012 Swedish data compared to the 1997 data (see online supplementary material for sociodemographic details).

Table 4.3: Meal characteristics and socio-demographic variables. Logistic regression analyses for Denmark, Norway and Sweden.

	Eating alone > 2/3 of meals			Short meals (any meals < 10 min)			Not at kitchen/dinner table > 2/3 of meals			Watching TV at any meal			PC, tablet, etc 2012 only		
	Denmark	Norway	Sweden	Denmark	Norway	Sweden	Denmark	Norway	Sweden	Denmark	Norway	Sweden	Denmark	Norway	Sweden
	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR
2012 (1997 (ref))	1.550**	.792	.629*	3.341***	2.950***	1.036	2.304***	2.688***	2.568***	2.041***	1.966***	1.411***	-	-	-
Woman (Man (ref))	.956	.902	1.048	1.550***	1.578***	1.201*	1.153	.991	.999	1.295**	1.142	1.042	1.078	.997	1.117
60->years (ref)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-59 years	.901	1.115	.361***	1.371*	1.927***	1.566**	1.053	.871	1.422*	1.577*	2.021***	2.459***	1.638*	2.173***	2.246**
30-44 years	.804	1.144	.421**	1.867***	2.665***	1.925***	1.163	1.008	1.597**	2.121***	2.960***	2.946***	3.521***	3.126***	3.308***
15-29 years	.835	.910	.295***	2.564***	2.312***	2.024***	1.355	1.111	2.057***	3.625***	5.105***	5.910***	5.685***	6.164***	8.477***
Retired (ref)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employed/Student	.444***	.354**	.702	1.744***	.939	1.153	.921	.768	1.154	.927	1.108	.742*	.727	.919	1.061
	.720	1.295	1.740	1.473	.948	1.394	1.262	.784	1.101	1.389	2.056**	.898	1.161	.988	1.756
			10.911***	1.181	1.121	1.297**	3.796***	3.213***	3.127***	1.565***	1.349***	1.403***	1.713***	1.902***	1.784***
			-	-	-	-	-	-	-	-	-	-	-	-	-
			.589**	.944	1.100	.944	1.452**	1.381**	.984	1.300*	1.156	1.054	.717*	.596**	.650**
			.928	1.058	1.087	.998	1.194	1.352	.885	1.434**	1.242	1.044	.845	.734	1.013
			-	-	-	-	-	-	-	-	-	-	-	-	-
			1.227	1.137	1.029	.987	.984	1.227	1.242	1.026	1.212	.925	1.008	1.008	1.128
			1.440*	.933	.880	.891	1.015	.864	1.384*	.928	1.191	1.005	1.129	.986	1.151
			1.269	2.015***	1.593***	1.961***	.943	.913	.905	1.051	.991	.793**	1.077	.855	1.411*
			n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
			n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
			4.088***	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30-44 years*2012	n.a.	n.a.	1.935*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Unemployed/homemaker															
Living alone (cohabit- ant(ref))	13.722***	8.720***													

Tertiary education (ref)	-	-
Secondary education	.956	1.132
Compulsory school/below	1.204	1.167
secondary education		
<u>Salariat (ref)</u>	-	-
Intermediate class	1.167	1.075
Working class	1.386	1.246
<u>Monday-Friday (ref: Sat.-</u>		
<u>Sunday)</u>	1.166	1.360*
Employed/Student*2012	n.a.	2.117***
Unemployed/		
homemaker*2012	n.a.	1.079 ⁴⁵⁻
59 years*2012 n.a.	n.a.	

Table 4.3: Meal characteristics and socio-demographic variables. Logistic regression analyses for Denmark, Norway and Sweden.

	Eating alone > 2/3 of meals			Short meals (any meals < 10 min)			Not at kitchen/dinner table > 2/3 of meals			Watching TV at any meal			PC, tablet, etc 2012 only		
	Denmark	Norway	Sweden	Denmark	Norway	Sweden	Denmark	Norway	Sweden	Denmark	Norway	Sweden	Denmark	Norway	Sweden
	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR
15-29 years*2012	n.a.	n.a.	4.401***	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Constant	.078	.111	.132	.103	.225	.229	.061	.060	.026	.614	.712	.765	.166	.190	.079
N	2798	2825	2896	2798	2825	2896	2656	2701	2769	2656	2701	2769	1710	1704	1692
Pseudo-R ² Nagelkerke	.362	.243	.323	.179	.123	.062	.148	.130	.161	.053	.037	.028	.108	.110	.145

Exponentiated coefficients. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
analysis, as it was statistically insignificant

n.a.: Interaction effect not included in the country specific

The regression analyses also showed that the ways in which socio-demographic factors were related to the five meal characteristics differed somewhat. Not surprisingly, eating alone was first of all related to living in a one-person household. In Denmark and Norway, eating alone was less likely among people that were employed or in education. The significant employment*year interaction effect, though, showed that in Norway this difference attenuated from 1997 to 2012. In Norway, it was more likely to eat alone during weekdays, than during weekends. Eating short meals was more frequent among women than men, but it was also strongly related to age, as the young ate more quick meals, and to eating during weekdays. In all countries eating somewhere other than at a dinner table was more likely among respondents living alone. In Sweden it was less likely among those with older age, and most likely among the young. Watching TV while eating was in all countries related to living alone and to age, as the oldest age group were less likely and the youngest age group the most likely to do so. In Norway it was associated with being unemployed or a homemaker, in Sweden it was less likely among employed/students, and in Denmark it was more likely among those lower educational attainment. In all countries, eating while using computers, smartphones or tablets was more prevalent among the young, those living alone, and more likely among people with higher educational attainment; than those with secondary education.

The social context and conduct of specific meal types, 2012

The question is, then, whether or not the changes we have identified pertain to eating events traditionally characterized by some formality and ceremony, such as main meals like dinner, or whether they relate mostly to in-betweens, which by tradition are more informal eating events (Douglas & Gross, 1981). In Figure 4.1. the propensity to eat alone, to eat short meals, to eat somewhere other than at kitchen/dinner table, to watch TV, to use pc/tablet/smartphone at different meal events is displayed for each of the four countries. These propensities are based on predicted probabilities calculated from the logistic GEE, where meal event significantly predicted all activities in all countries.

Figure 4.1. Meal characteristics by meal events. Propensity (in %) to use pc/tablet/smart phone, watch TV, not eat at kitchen/dinner table, eat short meals, and eat alone by meal event.

All figures are calculated predicted probabilities from Logistic GEE results. In addition to the main explanatory variable of interest here (meal event type), age and living alone and their interaction (age*living alone) were included as control variables; Denmark N= 5761; Norway=5544; Sweden=5547; Finland N=5871. Denmark N= 8207; Norway=7949; Sweden=7822; Finland N=7935.

Figure 4.1. shows that in all countries eating alone was most typical of breakfast meals and inbetweens. It was more rare for lunches, and even rarer still for dinners (the latter was not the case in Finland, however). The very short meals of less than ten minutes' duration were highest for inbetween eating events in all countries except Sweden, where 'other' events were equally often very short. However, between 20% (Sweden) and 40% (Norway) of breakfasts were also very short, and in Denmark and Norway between 15% and 20% of lunches were very short (probably due to the cold lunches in these countries), while this was only rarely the case for dinner in any of the countries. Eating at places other than at the kitchen or dinner table was most typical of the late evening meal, of in-betweens, and of 'other'. This was the case in all countries, but the prevalence of this kind of eating varied between countries: it was most prevalent in Denmark and Norway but less so in Finland and Sweden. Eating while watching TV followed a similar pattern. It was most typical of late evening meals and it was more prevalent in Denmark and Norway than it was in Sweden and Finland. Eating events characterized as 'other' also very frequently took place while watching TV. In Denmark around 40% of dinners took place while watching TV. This was less frequent in the other countries, ranging from 25% to 30%. It is worth noticing that watching TV while eating breakfast was less frequent than for dinner in all of the countries: between 15–20% of breakfasts appeared to take place in front of the TV. The frequency of using a pc, tablet or smartphone while eating was quite similar at breakfast, late evening meal, in-betweens and 'other', but was rarer at lunch, and in Denmark and Norway it was even less common at dinner. In Sweden the use of such devices was equally rare during dinner and lunch (5% of these meals), while in Finland it was rarer during lunch than it was during dinner.

The overall picture presented by Figure 4.1. was therefore that social context and conduct during eating varied greatly over different meal events. While breakfast appeared to be characterized relatively often by eating alone, fast eating and eating while using a computer or the like, this was not the case to the same degree for the other main meals.

Discussion

Our analysis showed that changes in the social organization of eating over the period 1997-2012 were by no means dramatic. Still, some signs pointed towards processes of individualization and informalization in eating.

Our data showed that the place where Nordic peoples eat had not changed over the 15-year period we investigated. The home and the workplace were the main arenas for meals, and going out to eat in restaurants or cafés was still a relatively rare activity. Thus the changes we could identify in the period of study related to social company, and even more markedly to the conduct of eating: in 2012 there were some small changes regarding propensity to eat alone. In Denmark more eating alone took place. And in Norway there was an increase, which took place first of all among employed/students. The opposite trend, i.e., lower probability of eating alone in 2012, was observed in Sweden. More eating took place in haste, while watching television, and using computers or smartphones was quite frequent in 2012. Correspondingly, in 2012 people ate less often than they did in 1997 at dinner tables, and more often at coffee and sofa tables and ‘other places’.

The regression analyses showed that some of the studied activities were explained to a large extent by socio-demographic factors, especially people’s age and whether or not they lived alone. However, even when we took such factors into account, there was still a statistically significant increase between 1997 and 2012 in many of the indicators of informalization and the indicator of individualization (in Denmark), suggesting that we were probably dealing with general cultural changes. The changes we found did not seem to apply evenly to the different meal events of the day. Dinner, by tradition the most formal and ceremonial meal, was less often eaten alone than all other meal types, and less often taken quickly, and while using a computer, tablet or smartphone. However, it was quite often eaten while watching television. There were some differences between countries in the way the conduct of eating varied across meal types. In Finland and Sweden, for instance, a lower percentage of respondents reported having fewer short lunches and lunches with computer technology than in Denmark and in Norway, a difference which is likely to reflect the different lunch traditions in the two pairs of countries: hot lunches prevail in Sweden and Finland, cold lunches in Denmark and Norway (Holm et al., 2015).

While eating quick meals and eating alone suggest that meals may have lost some of their social significance, it is important to remember that these practices did not apply evenly across all meal events. Especially worth mentioning is that eating quickly and alone was much less frequent for dinner than it was for other meal events. It could therefore be the case that the importance of the dinner, which is often seen as the main meal in families (Julier, 2013), was increasing relative to other meals. On the other hand, watching television while eating dinner was quite frequent, and this may be interpreted as showing that there was less socializing during dinner in 2012. It is interesting that the use of computers, tablets and mobile phones was not very typical for dinners. How is this to be aligned with the idea that dinner remains the pre-eminent social meal event? Perhaps watching television is capable of being a social activity that people partake in together, while the use of computer technology is more stubbornly solitary. The fact that it was television, and not the computer or tablet screen, which was the more typical dinner activity may be taken to suggest that,

in the new developments around dinner, we are seeing, not less socializing, but socializing of a new sort.

It was a strength of our data that they are records of micro-behavioral aspects of eating on specific days rather than more generalized accounts of habitual practices. Presumably more exact information is received when asking in this way about specific events rather than general habits. The questionnaire inspired by the 24-hour recall method worked well in achieving such exact data on specific events (Illner et al., 2012). However, individuals' daily eating varies from day to day, and it is a weakness that our method only covers 24 hours of eating. Repeated 24-hour recalls would have provided some measure of individual variation in daily practices, but for resource reasons this was not possible.

Further, we did not ask about whether respondents used computers, tablets or smartphones while eating in 1997, and our data therefore cannot document a change in this activity. However, there is good reason to presume that eating while using such devices is a new phenomenon, as in 1997 tablets and smartphones did not exist, and only very few households (in Denmark, for example, less than 10% (Statistics Denmark, 2016) had access to internet.

It was a strength of our data that they reported details about the social conduct and context of eating at different points in time. Such data are rare. There are, therefore, not many sources with which we can compare our results. Time-use studies provide one option, as they are repeated and, like our data, based on careful registration of activities during specific days (not, as is often the case, on respondents' reports on general and usual habits). In the Nordic countries, analyses of time-use data show that people spent more time eating in 2000 than they did in the late 1980s and early 1990s, but more detailed analysis of the context and character of eating events is rare (Statistics Sweden, 2003; Bonke, 2002; Varjonen & Peltoniemi, 2012). One Finnish study shows, however, that the increased duration is explained largely by coffees and snacks, not by "proper" meals (Varjonen & Peltoniemi, 2012). This may be taken to resonate with our finding that short eating episodes were more frequent.

Where other aspects of eating are concerned, the comparison with time-use studies from other countries reveals mixed results. While our data suggested that eating at home did not change, it declined according to analysis of time-use data from the early 1970s to the end of the 1990s in the USA, the UK, Norway and the Netherlands (Warde et al., 2007). This is an earlier period than that addressed in our study, but a Dutch study from a period closer to ours (1975-2005) has recently shown a steady decline in home-eating in the Netherlands (Mandemakers & Roeters, 2015). While eating out in restaurants, cafés and the like remained quite infrequent in the Nordic countries in our data, it increased quite dramatically in France and the UK, but not in Norway and the Netherlands, between the early 1970s and late 1990s (Warde et al., 2007) (see also Yates & Warde, 2014 for a more recent analysis of survey data from United Kingdom). The study from the later period in the Netherlands showed a very clear increase in eating out in restaurants or takeout outlets (Mandemakers & Roeters, 2015). While it has been suggested that the duration of eating episodes at home did not change in the UK (Warde et al., 2007), there were more short meals in the Nordic countries according to our data. On the other hand, our finding that eating alone in Denmark and eating while watching television increased in the Nordic countries is similar to results based on Belgian time-use data (Mestdag & Glorieux, 2009; Mestdag, 2005).

Can we conclude, then, that Nordic eating patterns were indeed characterized by delocalization, individualization and informalization? Hardly any signs of *delocalization* could be identified. Private households or institutional arrangements in workplaces and educational centers were still the most important sites for eating. Thus unlike findings from other countries (Cheng et al., 2007; Mandemakers & Roeters, 2015), our data showed that commercialization, in the form of more eating out in restaurants and cafés, was not a major trend in the Nordic countries. However, commercialization may take other forms, such as increased use of ready-made meals or other convenience services. Further studies are needed in order to decide whether, and to what extent, this could be the dominant form of commercialization in the Nordic countries, or whether food provisioning in these countries remains, to a greater extent than it does in other countries, privately organized.

With respect to *individualization*, we could detect some signs of diminishing sociability in eating especially in Denmark. Quite naturally, living alone as well as being unemployed, or a homemaker, or retired, resulted in more solitary meals, which clearly underlines the fact that, in general, frequent eating in company depends on being routinely exposed to the social company of others, either in the household, or at work, or in an educational setting. However, while neither this nor any other sociodemographic factor accounted for the changes over time in Denmark, the identified change in Norway was explained by changes going on among people in employment or studying.

Where *informalization* is concerned, our data suggested that considerable slackening of eating etiquette had taken place. In 2012 we saw more fast eating, more eating on the sofa, and more eating with parallel activities, such as TV, but also that eating while using other screens, such as TVs, computers, tablets and smartphones was frequent. Eating quickly was more typical among younger people, but the quite remarkable shortening of eating time that took place (especially in Denmark and Norway) appeared to be a general tendency. At the same time, the data showed that meals of lengthy duration had become less frequent. Together these trends could then, on the one hand, reasonably be interpreted as a sign of the diminishing social and cultural importance of daily eating events in the lives of the Nordic people. On the other hand, when we bear in mind that in 2012 a considerable proportion of meals took place while using computers, tablets or smartphones, we see that there is another interpretation, namely that new forms of sociability involving the use of these items had emerged.

The survey data used in the present analysis clearly did not provide a full picture of the social organization of eating. While data on frequency of simple activities at different points in time may show that practices have changed, more research of the character of eating practices is needed, including research employing qualitative methodologies, to decipher the meaning, implications and consequences of new patterns of eating. This would provide a basis on which more could be learned about the implications of the changes identified in this study for ordinary daily life in the four Nordic countries. While potentially negative health implications of those practices of eating which were on the rise have been suggested (Holm, Lund & Niva, 2015), more scrutiny is needed to ascertain whether, for example, watching TV while eating is in conflict with socializing and with the transfer of cultural values to future generations, and whether the move from dinner tables to sofa tables is in fact accompanied by informalization in table manners. While such changes clearly mark a move away from traditional and dominant rules of etiquette, we need to know more about the codes of conduct and forms of social interaction that are modified in the process.