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The Effects of Media Use on the Dietary Integration of the Second-Generation Muslim Youth in Europe

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1. Introduction

The author has been analyzing the correlates of halal food consumption behaviors and other religious practices as indicators of social integration among Muslim migrants in East Asia for several years (e.g., Kojima, 2013, 2014, 2015a, 2015b, 2016b) as well as its effects on the their self-assessed integration (Kojima, 2016c). More recently, he started the secondary analysis of Islamic dietary practices (halal food consumption and fasting during Ramadan) among Muslim migrants and their descendants in Western Europe.

The author's preliminary analysis of TIES (The Integration of European Second Generation) -Belgium survey data for Kojima (2016d) revealed unexpected effects of some correlates. It indicated that the second or younger children are less likely to observe Islamic dietary practices among the second-generation Muslim youth and that those who went to immigrant-majority secondary schools are more likely to consume halal food while those who went to immigrant-majority primary schools are less likely to fast during Ramadan. It also revealed that those who use the internet (new media) for religious purposes are more likely to practice fasting during Ramadan and those who watch the ethnic TV (old media) for more than 3 hours per week are more likely to eat halal food. The use of internet for work or study is found to have a negative effect on halal food consumption among males while watching no ethnic TV has a negative effect among females. The author's analysis of comparative Muslim surveys in East Asia found that the dietary practices have significant effects on self-assessed integration (Kojima, 2016c).

This study, drawing on Kojima (2016a), focuses on the effects of internet use by purpose on the dietary integration of the second-generation Muslim youth by applying comparable ordered logit models to TIES survey data from Belgium, Germany and

the Netherlands. It also analyzes the effect of ethnic TV watching because it is related to the author's former interest in the effect of mass (old) media on contraception and fertility in African (partly Islamic) countries (Kojima, 1994).

2. Literature Review

There does not seem to be any theoretical framework or empirical research directly incorporating the effects of internet use for specific purposes or media use on halal food consumption and other Islamic dietary practices, even though Bonne (2008) applied the Theory of Planned Behaviors to the analysis of general determinants of halal food consumption in Belgium. This framework is comprehensive, but most of the information is not readily available for empirical studies. It makes it difficult to understand the diversity of halal food eaters among the French Muslim youth, which is suggested by Rodier (2014).

Rodier classifies halal food eaters into four categories: 1) consumer eater (mangeur consommateur), 2) protest eater (mangeur revendicatif), 3) ascetic eater (mangeur ascète), and 4) ritualist eater (mangeur ritualiste). Among them the last one characterized by tradition is found only among the first-generation parents and the first three are found among their descendants. The consumer eater is characterized by consumption, the protestant eater is characterized by identity display and the ascetic eater is characterized by ethics. In relation to the new and old media use as a part of the Muslim youth culture, Herding (2013) classifies producers of the German Muslim youth culture into four typologies: 1) campaigners, 2) improvers, 3) empowerers, and 4) proselytizers. But these insightful classifications may not be used as they are in this study because they do not have one-to-one correspondence to the internet use by purpose in the data set.

There are hardly any empirical studies directly linking new and old media use by Muslims to halal food consumption and/or Islamic dietary restrictions in non-Muslim societies. There are few studies from the perspective of marketing research. Kamarulzaman et al. (2015) analyzed the specific use of social media to share information on halal food in the U.S., using the contents of three major consumer review websites. They confirmed the importance of social media in connecting religious communities and markets. Other less relevant studies barely relate the new and old media use to halal food consumption.

Bergeaud-Blackler et Bonne (2006) mentioned that most of French Muslim respondents in their halal food consumption survey visit ethnic internet sites and that the survey results turned out to be a counter-evidence to the argument about little confidence found in the internet forums. Bonne and Verbeke (2008) analyzed the halal food consumption of Belgian Muslim respondents of which about a half

responded their internet survey, while the effect of survey mode was not analyzed. Mishra and Semaan (2010) described the use of religious internet including the collection and verification of information on halal food, drawing on the in-depth interview. But none of them studies the effect of internet use by purpose on halal food consumption at the individual level, possibly due to the lack of data or interests in relating the two kinds of behaviors in non-Muslim societies.

In a comprehensive and comparative study report based on TIES (Crul et al., 2012), there is a chapter on religious identities dealing with Islamic dietary practice (Phalet et al., 2012), but it does not relate it to the new and old media use. The media use is analyzed in a separate chapter (Schneider et al., 2012), but the relationship between dietary practices and media use is not examined.

3. Data and Methods

Actually, TIES (The Integration of European Second generation, 2005–2007) survey turns out to be the only comparative survey of the second-generation Muslim youth in Europe, collecting information on both the dietary restrictions and the new and old media use. This is the reason why the data sets are analyzed in this study. TIES survey data for Belgium, Germany and the Netherlands are more readily available to the author. TIES survey was conducted in two major cities in each country and not nationally representative while it is usually representative of each city. Usable cases for Muslims are 1000 for Belgium, 370 for Germany and 728 for the Netherlands.

The original data set for Germany includes a relatively large proportion of non-Muslim natives and most of the second-generation Muslim youth are of relatively secular Turkish origin. The usable cases are also reduced in other countries because only self-reported Muslims are analyzed in this study. The respondents who are born in another country than the Netherlands were excluded from the analysis.

For details the readers should refer to Swyngedouw et al. (2008) for the 2007–2008 TIES-BE data, Hornstra et al. (2011) for the 2006–2007 TIES-NL data and Wilmes (2009) for the 2007–2008 TIES-DE data as well as the comprehensive and comparative TIES study report (Crul et al., 2012).

The main method of analysis is the ordered logit analysis. The analyses were made separately by sex because the religious practices and their correlates are often different by sex. The dependent variables include the frequency of halal food consumption and that of fasting during the last Ramadan, both of which are in five-point scale. The questions on dietary integration are as follows:

FREQUENCY OF EATING HALAL FOOD FOR MUSLIMS

Do you eat halal food?

1. Never
2. Occasionally
3. Depends on the situation
4. Most of the time
5. Always

FREQUENCY OF FASTING FOR MUSLIMS

During the last Ramadan, how often did you fast?

1. Never
2. Occasionally
3. Depends on the situation
4. Most of the time
5. Always

It should be noted that the order of choices are reversed for the ordered logit analysis for the ease of interpretation.

Independent variables include dummies for the internet use for 1) work or study, 2) religious matters, 3) leisure, 4) keeping in touch with friends (excl. Belgium), 5) political themes (only Belgium), and 6) information on the country of parental origin (excluding Belgium). The questions for Belgium are as follows:

PURPOSE OF INTERNET USE

For what purpose did you use the internet during the past year? Was it for ...?

1. Your work and your studies	0. Other
1. Religious questions	0. Other
1. Your leisure, such as sports or music	0. Other
1. Political themes	0. Other

The set of questions for Germany and the Netherlands are as follows:

Do you use the internet?

1. Yes
2. No

For which of the following purposes indicated on this card do you use the internet?

For work: 1. Mentioned 2. Not mentioned

For study: 1. Mentioned 2. Not mentioned
For religious matters: 1. Mentioned 2. Not mentioned
To keep in touch with friends: 1. Mentioned 2. Not mentioned
For leisure: 1. Mentioned 2. Not mentioned
For information about [COUNTRY OF BIRTH OF PARENTS]:
1. Mentioned 2. Not mentioned

An additional independent variable includes frequent ethnic TV watching. The question on ethnic TV watching for Belgium is as follows:

ETHNIC TV
How many hours a week do you spend watching Turkish-speaking/Arabic-speaking television channels?
1. 0 hours
2. 1 min – 3 hours
3. 3–7 hours
4. 7–12 hours
5. 12–20 hours
6. More than 20 hours

Belgian Muslim respondents watching ethnic TV for more than 3 hours per week are defined as frequent ethnic TV watchers. The set of questions on (ethnic) TV watching for Germany and the Netherlands are as follows:

Do you watch television?
1. Yes
2. No

What kind of stations do you watch?
1. Only [NATIONAL] speaking stations
2. Mostly [NATIONAL] speaking stations
3. As much [NATIONAL] as [ETHNIC GROUP] speaking stations
4. Mostly [ETHNIC GROUP] speaking stations
5. Only [ETHNIC GROUP] speaking stations
6. As much [NATIONAL] as other speaking stations
7. Mostly other speaking stations
8. Only other speaking stations

German and Dutch Muslim respondents who watch ethnic TV as much as or more

than national TV (choices 4 through 6) are defined as frequent ethnic TV watchers because the overall proportion of respondents are similar to that of Belgian frequent ethnic TV watchers.

Control variables include dummies for city, age, Turkish origin, non-eldest child, tertiary education, immigrant-majority primary and secondary schools, no work, ethnic homogamy, Koran lessons during childhood, and frequency of parental visits to Mosques during childhood.

4. Results

4.1. Bivariate Analysis

Table 1 shows the results of bivariate analyses by sex. The first panel presents the proportion of internet users by purpose and that of frequent ethnic TV watchers. The proportion of internet users for leisure is very high (66–86%) in all the three countries. The proportion of internet users to keep in touch with friends is the next highest in the Netherlands (76–78%) and Germany (56–58%) even though it is 20% lower in Germany. The proportion of internet users for work or study is also high (59–78%) in the Netherlands and Belgium but much lower in Germany (17–18%).

The proportion of internet users for religious matters is low (8–33%) in all the three countries, and it is the highest in the Netherlands (30–33%) and the lowest in Germany (8–10%). The proportion of internet users for information on the country of parental origin is somewhat low in the Netherlands (42–48%) and low in Germany (17–19%). The proportion of internet users for political theme in Belgium is also low (10–14%).

Females have lower proportion of internet users for leisure than males (by 7–17%) in all the three countries. But the sex differences are not consistent across purposes and countries. About 40 percent of respondents are frequent ethnic TV watchers and the proportion is higher among females than males (by 1–13%) in all the three countries.

The second panel of Table 1 shows the proportion of respondents who are always eating halal food. It is the highest in Belgium (87% for females and 73% for males), the second highest in the Netherlands (66% for females and 61% for males) and the lowest in Germany (38% for females and 26% for males) on the average among all the respondents of each sex and it is higher among females by 5–14%. Compared with the average (mean), the proportion always eating halal food is higher among internet users for religion of both sexes in all the three countries (by about 10%) as expected. It is also somewhat higher than the average among internet users for information on the country of parental origin (by 3–5%) in the Netherlands, while it is a little higher than the average among females and a little lower among males in Germany.

Table 1 Proportion of Muslims Using Media and Always Observing Dietary Restrictions by Sex and by Media and Purpose

% Media Use	Sex	N	Internet Use by Purpose						Ethnic TV Watching
			Work/Study	Religion	Leisure	Friend	Origin	Political	
Germany	M	179	17.3%	10.1%	82.7%	56.4%	17.3%	-	43.6%
	F	191	17.8%	7.9%	66.0%	57.6%	18.8%	-	45.0%
Netherlands	M	342	77.8%	30.4%	86.3%	78.1%	48.2%	-	30.7%
	F	386	71.2%	33.2%	79.5%	75.9%	42.0%	-	43.8%
Belgium	M	483	59.0%	20.3%	84.7%	-	-	13.7%	41.8%
	F	518	61.2%	20.7%	72.6%	-	-	9.7%	43.4%
% Always Eat Halal	Sex	Average	Internet Use by Purpose						Ethnic TV Watching
			Work/Study	Religion	Leisure	Friend	Origin	Political	
Germany	M	25.7%	35.5%	38.9%	16.9%	17.8%	22.6%	-	35.9%
	F	37.7%	14.7%	46.7%	23.8%	26.4%	38.9%	-	55.8%
Netherlands	M	60.5%	59.4%	67.3%	59.3%	59.9%	65.5%	-	64.8%
	F	65.5%	62.9%	79.7%	64.5%	62.5%	68.5%	-	68.6%
Belgium	M	72.9%	71.2%	82.7%	72.9%	-	-	71.2%	75.2%
	F	87.1%	86.8%	92.5%	87.0%	-	-	82.0%	88.9%
% Always Fast Ramadan	Sex	Average	Internet Use by Purpose						Ethnic TV Watching
			Work/Study	Religion	Leisure	Friend	Origin	Political	
Germany	M	35.8%	35.5%	61.1%	29.7%	30.7%	45.2%	-	41.0%
	F	38.2%	17.6%	33.3%	23.8%	27.3%	44.4%	-	58.1%
Netherlands	M	76.6%	78.9%	83.7%	78.0%	78.3%	79.4%	-	71.4%
	F	75.9%	76.0%	85.9%	75.6%	74.1%	78.4%	-	70.4%
Belgium	M	69.2%	69.8%	78.6%	70.2%	-	-	71.2%	68.8%
	F	74.7%	76.3%	86.0%	74.7%	-	-	74.0%	68.4%

(Source) TIES (Belgium, Germany and the Netherlands) Survey Microdata

Among internet users for leisure, the proportion always eating halal food is about the same as the average in Belgium and the Netherlands, but in Germany it is lower than the average among males (by 9%) and even lower among females (by 14%). The similar sex differences are observed among internet users to keep in touch with friends in Germany, but the differences are much smaller in the Netherlands. Among internet users for other purposes, the proportion always eating halal food is not too different from the average in Belgium and the Netherlands. In Germany, however, the proportion always eating halal food is higher than the average among male internet users for work or study, but it is much lower than the average among female counterpart. The proportion always eating halal food is higher than the average among frequent ethnic TV watchers in all the three countries, but the differences are more pronounced in Germany (10% for males and 18% for females).

The third panel of Table 1 shows the proportion of respondents who were always fasting during the last Ramadan. It is the highest in Belgium (75% for females and 69% for males), the second highest in the Netherlands (76% for females and 77% for males) and the lowest in Germany (38% for females and 36% for males) on the average. The average proportion always fasting is higher than the average proportion always eating halal food in Germany and the Netherlands, but lower in Belgium (by 12% for female and 3% for males).

Compared with the average, the proportion always fasting is higher among internet users for religious matters except for females in Germany (lower by 5%). The difference is particularly large for males in Germany (25%). It is also somewhat higher among internet users for information on the country of parental origin (by 3%) in the Netherlands, while it is higher (by 9% for male and 6% for females) in Germany.

Among internet users for leisure, the proportion always fasting is about the same as the average in Belgium and the Netherlands, but in Germany it is lower than the average (by 6−14%). The similar differences are observed among internet users to keep in touch with friends in Germany, but the differences are much smaller in the Netherlands. Among internet users for other purposes, the proportion always fasting is not too different from the average in all the three countries except in Germany where much lower proportion always fasting is observed among female internet users for work or study (by 20%). Unexpectedly, the proportion always fasting is lower than the average among frequent ethnic TV watchers in Belgium and the Netherlands, but in Germany it is higher (by 5% for males and by 20% among females) as in the case of the proportion always eating halal food. Since the effects of new and old media use in the bivariate analysis is confounded by other factors, it might be better to examine the results of multivariate analysis.

4.2. Ordered Logit Analysis

The ordered logit analysis has revealed rather consistent results across sexes and societies. After controlling for selected demographic and socioeconomic variables (including family and school variables) as well as own Koran lessons and parents' frequent visit to Mosques during childhood, the results for Model 1 in Table 2 show that the internet use for work or study has negative effects on halal food consumption among Dutch and Belgian males (and both sexes) and German females. The internet use for religious matters has positive effects on halal food consumption among Dutch and Belgian males and females (and both sexes) but it does not have any significant effects among Germans. The internet use for leisure has negative effects among German males and females (and both sexes), but it does not have any significant effects among Dutch and Belgians. The internet use to keep in touch with friends has negative effects among German and Dutch females (and both sexes), while the information is not available for Belgium. The internet use for political themes has negative effects among Belgian females (and both sexes) on halal food consumption, while the informaiton is not available for the other two societies. The internet use for information on the country of parental origin has positive effects among German females and Dutch males (and both sexes in the two societies), while the information is not available for Belgium.

Since the information on the hours to watch ethnic TV is available only for

Table 2 Correlates of Halal Food Consumption: Ordered Logit Model

Germany						
Indep/Control Variables	Both Sexes		Males		Females	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept 1	− 1.157 *	− 1.514 **	− 0.829	− 1.225	− 2.048 **	− 2.356 ***
Intercept 2	0.322	− 0.002	0.842	0.548	− 0.604	− 0.897
Intercept 3	1.632 **	1.338 **	2.169 **	1.951 *	0.840	0.565
Intercept 4	3.169 ***	2.896 ***	3.638 ***	3.457 ***	2.569 ***	2.314 **
Berlin	− 0.245	− 0.259	− 0.242	− 0.339	− 0.451	− 0.415
Female	0.098	0.134	–	–	–	–
Age 18 − 24	− 0.361	− 0.443 #	− 0.311	− 0.301	− 0.370	− 0.489
Age 30 − 39	− 0.322	− 0.297	− 0.454	− 0.377	− 0.069	− 0.037
Turkish Origin	0.498	0.365	0.431	0.213	0.510	0.449
2nd Child	0.244	0.294	− 0.335	− 0.255	0.854 *	0.889 *
Tertiary Educ	− 0.379	− 0.230	0.131	0.465	− 1.048 *	− 0.950 #
Immig Primary	0.220	0.161	0.241	0.228	0.344	0.277
Immig Second	− 0.154	− 0.178	− 0.306	− 0.495	0.022	0.091
No Work	0.551 *	0.461 *	− 0.055	− 0.118	0.995 **	0.883 *
Eth Homogamy	0.407	0.195	− 0.375	− 0.812	1.02 *	0.885 #
Koran Lesson	1.031 ***	1.018 ***	0.957 **	0.927 ***	1.365 ***	1.332 ***
Parent Prayer	0.973 ***	0.941 ***	0.94 *	1.002 *	1.514 ***	1.399 **
Int Work/Study	− 0.485	− 0.393	0.09	0.284	− 1.231 *	− 1.254 **
Int Religion	0.296	0.232	0.690	0.485	− 0.231	− 0.195
Int Friend	− 0.634 *	− 0.497 #	− 0.444	− 0.093	− 0.774 *	− 0.700 #
Int Leisure	− 1.040 ***	− 0.896 **	− 1.048 *	− 1.161 *	− 0.680 #	− 0.471
Int Origin	0.505 #	0.505 #	− 0.043	− 0.153	1.517 ***	1.569 ***
Eth ge Nat TV	–	0.789 ***	–	1.314 ***	–	0.596
N	370	370	179	179	191	191
− 2 Log L	1098.104	1098.104	531.948	531.948	558.889	558.889
Chi − Square	119.398 ***	119.222 ***	129.818 ***	126.055 ***	103.703 ***	108.088 ***
Netherlands						
Indep/Control Variables	Both Sexes		Males		Females	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept 1	0.174	0.144	0.311	0.279	0.269	0.169
Intercept 2	1.297 ***	1.278 ***	1.506 **	1.483 **	1.364 **	1.281 **
Intercept 3	2.114 ***	2.102 ***	2.422 ***	2.402 ***	2.111 ***	2.040 ***
Intercept 4	3.830 ***	3.824 ***	4.154 ***	4.132 ***	3.833 ***	3.778 ***
Amsterdam	0.149	0.144	0.071	0.048	0.200	0.208
Female	0.222	0.148	–	–	–	–
Age 18 − 24	0.180	0.133	0.052	0.041	0.279	0.195
Age 30 − 39	− 0.088	− 0.082	− 0.064	− 0.066	− 0.224	− 0.196
Turkish Origin	− 0.491 **	− 0.739 ***	− 0.576 *	− 0.75 **	− 0.487 #	− 0.831 **
2nd Child	0.182	0.216	− 0.058	− 0.004	0.411	0.412
Tertiary Educ	− 0.068	− 0.048	0.336	0.355	− 0.502 #	− 0.495 #
Immig Primary	− 0.313 #	− 0.316 #	− 0.654 *	− 0.673 *	− 0.078	− 0.076
Immig Second	0.283	0.275	0.421	0.441	0.282	0.241
No Work	0.095	0.120	0.300	0.320	− 0.015	0.010
Eth Homogamy	0.295	0.211	0.177	0.075	0.488	0.433
Koran Lesson	0.607 ***	0.585 ***	0.793 **	0.798 **	0.419 #	0.350
Parent Prayer	0.586 ***	0.579 ***	0.721 **	0.693 **	0.475 #	0.498 #
Int Work/Study	− 0.492 *	− 0.435 *	− 0.600 #	− 0.567 #	− 0.411	− 0.305
Int Religion	0.784 ***	0.783 ***	0.485 #	0.445	1.182 ***	1.227 ***
Int Friend	− 0.465 #	− 0.451 #	− 0.010	0.000	− 0.890 *	− 0.868 *
Int Leisure	− 0.111	− 0.112	− 0.552	− 0.559	0.278	0.269
Int Origin	0.385 *	0.344 #	0.495 #	0.448 #	0.341	0.307
Eth ge Nat TV	–	0.562 **	–	0.464	–	0.688 *
N	722	722	340	340	382	382
− 2 Log L	1544.738	1544.738	754.782	754.782	787.156	787.156
Chi − Square	51.355	51.714	106.943 ***	109.236 ***	82.619 **	109.558 ***

Table 2 (Continued)

Belgium						
Indep/Control Variables	Both Sexes		Males		Females	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept 1	1.337 ***	1.255 ***	1.877 ***	1.809 ***	1.128 *	0.938
Intercept 2	2.290 ***	2.221 ***	2.936 ***	2.883 ***	1.973 ***	1.800 **
Intercept 3	3.157 ***	3.094 ***	3.906 ***	3.862 ***	2.721 ***	2.561 ***
Intercept 4	4.004 *	3.944 *	5.086 ***	5.047 ***	3.187 ***	3.034 ***
Antwerp	− 0.469	− 0.477	− 0.730 **	− 0.756 **	− 0.160	− 0.191
Female	0.707 ***	0.684 ***	–	–	–	–
Age 18 − 24	0.217	0.277	0.080	0.191	0.347	0.313
Age 30 − 39	− 0.676 **	− 0.617 **	− 1.155 ***	− 1.091 ***	− 0.010	0.077
Turkish Origin	− 0.859 ***	− 1.146 ***	− 0.613 **	− 0.856 ***	− 1.158 ***	− 1.558 ***
2nd Child	− 0.420 *	− 0.474 *	− 0.560 *	− 0.675 **	− 0.244	− 0.211
Tertiary Educ	0.103	0.227	0.001	0.101	− 0.122	0.051
Immig Primary	− 0.096	− 0.077	− 0.101	− 0.033	− 0.095	− 0.182
Immig Second	0.204	0.171	0.228	0.168	0.286	0.342
No Work	0.243	0.211	− 0.182	− 0.204	0.641 *	0.590 *
Eth Homogamy	0.444 *	0.400 #	0.043	0.006	1.050 **	0.985 **
Koran Lesson	0.644 ***	0.637 ***	0.702 **	0.681 **	0.631 *	0.652 *
Parent Prayer	0.509 **	0.493 *	0.738 **	0.732 **	0.225	0.216
Int Work/Study	− 0.387 *	− 0.383 *	− 0.566 *	− 0.587 *	0.109	0.199
Int Religion	0.836 **	0.804 **	0.949 **	0.928 **	0.774 #	0.770 #
Int Leisure	− 0.019	− 0.025	− 0.140	− 0.178	0.075	0.114
Int Politics	− 0.567 *	− 0.588 *	− 0.482	− 0.483	− 0.753 #	− 0.857 #
Ethnic TV 3H+	–	0.685 ***	–	0.652 **	–	0.948 **
N	1000	1000	483	483	517	517
− 2 Log L	1461.743	1461.743	870.314	870.314	554.186	554.186
Chi − Square	151.517 ***	167.799 ***	196.516 ***	219.886 ***	518.821 ***	524.560 ***

(Note) # $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
(Source) TIES (Belgium, Germany and the Netherlands) Survey Microdata

Belgium, the variable for watching ethnic TV for more than 3 hours per week (frequent ethnic TV watching) is added in Model 2 and its results show that the variable has positive effects among Belgian males and females (and both sexes) on halal food consumption. In Model 2, the variable for watching ethnic TV for equal to or more than national TV (with similar percentages for those watching ethnic TV for more than 3 hours in Belgium) has also positive effects among German males and Dutch females (among both sexes in the two societies) on halal food consumption, while the effects of the internet use for information on the country of parental origin retains its effects. Therefore, it may be possible that the effects of ethnic TV watching represent the effects of "consumer" eaters and the effects of internet use for information on the country of parental origin represent the effects of "protest" eaters, while the effects of internet use for religious matters represent the effects of "ascetic" eaters, indicating the diversification of halal food eaters as suggested by Rodier (2014) for the French Muslim youth.

Table 3 for fasting during the last Ramadan shows similar but less pronounced results for the Netherlands and Belgium. But it shows somewhat more pronounced results for the media use related to religion and ethnicity for Germany. This may be

Table 3 Correlates of Fasting during Ramadan: Ordered Logit Model

Germany						
Indep/Control Variables	Both Sexes		Males		Females	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept 1	− 0.808	− 1.121 *	− 0.380	− 0.587	− 1.038	− 1.524 *
Intercept 2	0.636	0.350	1.178	0.990	0.425	− 0.011
Intercept 3	2.011 ***	1.764 ***	2.554 **	2.402 **	1.907 **	1.535 *
Intercept 4	3.312 ***	3.095 ***	4.100 ***	3.997 ***	3.115 ***	2.781 ***
Berlin	− 0.208	− 0.203	− 0.654 *	− 0.693 *	0.039	0.109
Female	− 0.249	− 0.214	–	–	–	–
Age 18 − 24	0.040	− 0.032	− 0.296	− 0.310	0.379	0.217
Age 30 − 39	− 0.646 *	− 0.615 *	− 0.346	− 0.275	− 0.927 *	− 0.868 *
Turkish Origin	− 0.285	− 0.490	− 0.642	− 0.854	− 0.225	− 0.443
2nd Child	− 0.070	− 0.027	− 0.53	− 0.468	− 0.023	0.047
Tertiary Educ	0.405	0.566	0.924	1.200 #	− 0.057	0.120
Immig Primary	0.533 *	0.471 *	0.283	0.258	0.732 *	0.626 #
Immig Second	− 0.225	− 0.238	− 0.302	− 0.414	− 0.365	− 0.245
No Work	0.581 *	0.457 #	0.754 +	0.709 *	0.401	0.135
Eth Homogamy	0.946 **	0.762 *	0.238	− 0.037	1.574 **	1.431 **
Koran Lesson	1.663 ***	1.669 ***	1.517 ***	1.511 ***	2.114 ***	2.085 ***
Parent Prayer	1.128 ***	1.075 ***	1.393 ***	1.422 ***	1.013 *	0.868 *
Int Work/Study	− 0.355	− 0.287	− 0.152	− 0.035	− 0.461	− 0.549
Int Religion	0.192	0.098	1.158 #	1.028	− 0.723	− 0.781
Int Friend	− 0.859 ***	− 0.708 **	− 0.750 *	− 0.556	− 1.238 **	− 1.056 **
Int Leisure	− 0.859 **	− 0.712 *	− 0.476	− 0.466	− 1.193 **	− 0.900 *
Int Origin	0.748 *	0.719 *	0.158	0.018	1.349 **	1.457 **
Eth ge Nat TV	–	0.809 ***	–	0.813 *	–	1.095 **
N	370	370	179	179	191	191
− 2 Log L	1084.973	1084.973	516.152	516.152	565.341	565.341
Chi − Square	160.685 ***	174.228 ***	101.063 ***	107.026 ***	207.349 ***	186.595 ***
Netherlands						
Indep/Control Variables	Both Sexes		Males		Females	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept 1	1.193 **	1.171 **	1.226 #	1.168 #	1.202 *	1.169 *
Intercept 2	1.703 ***	1.683 ***	1.811 **	1.754 **	1.67 **	1.638 **
Intercept 3	2.182 ***	2.165 ***	2.151 **	2.098 **	2.301 ***	2.272 ***
Intercept 4	2.701 ***	2.688 ***	2.63 ***	2.583 ***	2.881 ***	2.856 ***
Amsterdam	0.131	0.125	0.307	0.282	0.036	0.032
Female	0.010	− 0.03	–	–	–	–
Age 18 − 24	0.187	0.151	− 0.065	− 0.105	0.408	0.372
Age 30 − 39	− 0.696 *	− 0.707 *	− 1.185 **	− 1.256 **	− 0.383	− 0.371
Turkish Origin	− 1.694 ***	− 1.825 ***	− 1.705 ***	− 1.862 ***	− 1.792 ***	− 1.905 ***
2nd Child	0.115	0.123	0.078	0.123	0.108	0.095
Tertiary Educ	− 0.155	− 0.135	0.412	0.466	− 0.611 #	− 0.600 #
Immig Primary	0.125	0.131	− 0.031	− 0.033	0.208	0.213
Immig Second	− 0.004	− 0.01	− 0.171	− 0.152	0.164	0.149
No Work	− 0.015	− 0.006	− 0.084	− 0.066	0.117	0.119
Eth Homogamy	0.316	0.279	0.466	0.404	0.309	0.284
Koran Lesson	0.964 ***	0.951 ***	1.146 ***	1.155 ***	0.847 **	0.825 **
Parent Prayer	0.531 *	0.516 *	0.510 #	0.461	0.521 #	0.521 #
Int Work/Study	− 0.188	− 0.154	− 0.181	− 0.137	− 0.267	− 0.238
Int Religion	0.627 **	0.628 **	0.421	0.389	0.865 **	0.879 **
Int Friend	− 0.425	− 0.421	− 0.004	0.000	− 0.867 *	− 0.857 *
Int Leisure	0.111	0.128	0.068	0.112	0.359	0.362
Int Origin	0.336	0.315	0.174	0.104	0.433	0.432
Eth ge Nat TV	–	0.288	–	0.416	–	0.231
N	725	725	341	341	384	384
− 2 Log L	1249.236	1249.236	577.18	577.18	668.574	668.574
Chi − Square	72.672 *	93.117 **	180.615 ***	179.050 ***	100.098 ***	132.637 ***

Table 3 (Continued)

Belgium						
Indep/Control Variables	Both Sexes		Males		Females	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept 1	0.713 *	0.678 *	0.812 #	0.745 #	0.353	0.332
Intercept 2	1.269 ***	1.236 ***	1.379 **	1.314 **	0.924 *	0.903 *
Intercept 3	1.694 ***	1.661 ***	1.763 ***	1.699 ***	1.416 **	1.395 **
Intercept 4	2.157 ***	2.125 ***	2.246 ***	2.183 ***	1.876 ***	1.854 ***
Antwerp	− 0.009	− 0.008	− 0.067	− 0.075	0.070	0.070
Female	− 0.026	− 0.040	−	−	−	−
Age 18 − 24	0.559 *	0.569 **	0.359	0.404	0.835 **	0.828 **
Age 30 − 39	− 0.252	− 0.239	− 0.462 #	− 0.439 #	− 0.035	− 0.028
Turkish Origin	− 1.396 ***	− 1.498 ***	− 1.041 ***	− 1.157 ***	− 1.863 ***	− 1.912 ***
2nd Child	− 0.091	− 0.097	0.022	− 0.009	− 0.199	− 0.193
Tertiary Educ	0.314	0.363	0.221	0.281	0.236	0.260
Immig Primary	− 0.157	− 0.154	− 0.358	− 0.321	0.083	0.071
Immig Second	− 0.014	− 0.027	− 0.289	− 0.328	0.359	0.362
No Work	0.102	0.092	0.036	0.041	0.121	0.114
Eth Homogamy	0.585 **	0.572 **	0.331	0.328	0.882 ***	0.874 ***
Koran Lesson	0.703 ***	0.701 ***	0.738 **	0.738 **	0.750 **	0.750 **
Parent Prayer	0.541 **	0.531 **	0.630 **	0.612 *	0.361	0.359
Int Work/Study	− 0.061	− 0.052	− 0.154	− 0.152	0.164	0.175
Int Religion	0.686 **	0.663 **	0.490	0.455	0.945 **	0.938 **
Int Leisure	0.039	0.045	0.286	0.286	− 0.178	− 0.175
Int Politics	− 0.261	− 0.257	− 0.260	− 0.248	− 0.253	− 0.253
Ethnic TV 3H+	−	0.231	−	0.305	−	0.109
N	1001	1001	483	483	518	518
− 2 Log L	1933.023	1933.023	992.756	992.756	935.58	935.58
Chi − Square	57.607	59.128	160.799 ***	159.813 ***	67.864 *	71.053 *

(Note) # p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
(Source) TIES (Belgium, Germany and the Netherlands) Survey Microdata

because fasting is more of a religious practice than a "consumer" behavior or a "protest" behavior. In the case of Germany the effects are more pronounced possibly because of the selection among more secular Turkish-origin population.

5. Conclusion

The analysis has revealed rather consistent results across sexes and societies, with unexpected ones. The effect of new and old media use on halal food consumption and fasting among the European Muslim youth depends on the ethno-religious context as well the market and media preparedness in an European country, resulting in stronger effects on fasting in Germany (partly due to the Turkish-origin dominance). It may be true for other Muslim and non-Muslim countries facing the globalized market and new communication systems.

The effect of new and old media use on the dietary integration also differs by the nature of dietary practice and across sexes among the second-generation Muslim youth. It may be true for other aspects of integration among the second-generation Muslim youth in Europe, but it may be somewhat different due to the multiplicity of

the integration process as indicated by the difference between halal food eating and fasting during Ramadan. The results should have implication for the globalized food processing industries in Europe as well as Asia including Japan.

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