

1 1. INTRODUCTION

2 Increase in demand has been a trend among locally produced and sourced raw materials and food
3 products in the U.S. (Low et al., 2015) and Europe (Kneafsey et al., 2013). In practice, this can be seen
4 as an increase in the number of farms selling products directly to consumers, but also in the more
5 advanced supply chains of local food (Low et al., 2015; Kneafsey et al., 2013). The definition of local
6 food is still rather vague and in some cases controversial. Typical examples are definitions related to
7 physical distance or logistic steps between places of production and consumption (Peters, Bills, Wilkins
8 & Fick, 2009). **The specific distances attached to the local origin vary from 10 miles up to a 100 miles**
9 **(Feldmann & Hamm, 2015). For example in a study by Adams & Adams (2011), three percent of**
10 **respondents thought local food had to come from within 10 miles, 28 percent said within 30 miles,**
11 **and 42 percent within 50 miles; however, 70 percent also considered that local products had to come**
12 **from locally owned farms.** In addition to proximity, local food is often referred to as a food produced
13 on a small scale (Motta & Sharma, 2016). It seems that locality is a much more complicated concept
14 than mere food miles.

15 Consumers' motivations to use locally produced food are diverse. Typically, local food is associated
16 as being better in quality, tastier, healthier, or more fresh (Campbell, DiPietro & Remar, 2014; Motta
17 & Sharma, 2016). The qualities attached to local food might infer that consumers who value the
18 sensory properties of food are also drawn to local products. Consumers of local food may also become
19 more emotionally attached to the produce, which can alter the product related experience (O'Kane,
20 2016). Food systems are becoming more complex, and the recently increased demand for local food
21 can also be seen as a desire for regional self-reliance (Hinrichs, 2003). **When no information about the**
22 **origin of the food is available, the origin can be seen as neutral, in other words, food from nowhere**
23 **(Schermer, 2015). Providing information about the product is a key factor when considering the**
24 **consumers' trust in the seller as well as the consumers' ability to make judgments about possible food**
25 **safety risks (Yoo, Parameswaran & Kishore, 2015). The food origin can be considered domestic when**
26 **it is consumed in the same country as it is produced. Domestic origin is often favored over imports or**
27 **other less specific origins (Fernqvist & Ekelund, 2014). Gineikiene, Schlegelmilch & Auruskeviciene**
28 **(2017) showed that domestic products create a strong sense of ownership for consumers when**
29 **purchasing products from their own country.**

30 The product quality is based not only on perceived properties, but also the expectations placed on the
31 product. Consumer expectations can be created by providing information about the product
32 (Piqueras-Fizman & Spence, 2015). Information not related to the actual physical product, such as
33 labelling, is called an extrinsic cue (Deliza & MacFie, 1996). The geographical origin of the food can
34 raise expectations which modify the **perceived** product quality (Iaccarino, Di Monaco, Mincione,
35 Cavella & Masi, 2006; Fernqvist & Ekelund, 2014). Stefani, Romano & Cavicchi (2006) showed that in
36 the case of spelt, the narrower and more precise the description of the geographical origin of food,
37 the higher the quality expected. The effect of product origin may vary according to individual
38 preferences (Cosmina, Gallenti, Marangon & Troiano, 2016). Fernqvist & Ekelund (2014) concluded in
39 their review that domestic, regional, and local products receive higher hedonic evaluations as
40 compared to products from elsewhere.

41 When examining food consumption patterns, age has a well-recognized role. **The constructs of health**
42 **and convenience differ among adolescents comparing to adults and the sensory aspects of food may**

43 not be equally important (Share & Stewart-Knox, 2012). This may indicate that motives for food choice
44 change with age. During adolescence people may be more dependent on their families and reflect to
45 some extent the eating patterns of their parents (Ambrosini et al., 2009; Pearson, Biddle & Gorely,
46 2009). Food preferences are very dynamic during early ages and they can be significantly different
47 among elementary, middle, and high schools (3rd-12th grades) (Caine-Bish & Scheule, 2009). Teenagers
48 are more conscious of their peers and, for example, healthy diet can be seen as socially risky (Elliott,
49 2014). When moving to their own household, the ability to make individual choices has a tendency to
50 increase unhealthy eating (Demory-Luce et al., 2004; Lien, Lytle & Klepp, 2001). During the transition
51 to young adulthood (age 19 – 28) the overall quality of diet tends to decrease resulting, for example,
52 in a decrease in the amounts of fruits and vegetables consumed (Demory-Luce et al., 2004). A study
53 by Lien et al. (2001) showed similar results as regards a decrease in fruit and vegetable consumption,
54 but also that a healthy eating behavior adopted at an early age showed some stability. University
55 students value local food (Campbell et al., 2014), but the topic has not been extensively studied among
56 adolescents. According to the study by Robinson-O'Brien, Larson, Neumark-Sztainer, Hannan & Story
57 (2009) 20.9 % of adolescents considered somewhat or very important that their food was locally
58 grown, but the effect of product type was not studied.

59 Female respondents seem to place more value on food in their lives than men (Bellows, Alcaraz &
60 Hallman, 2010). Independent from the product, the food choices have more personal importance and
61 relevance to female consumers than they have for males (Levi, Chan & Pence, 2006), as they seem to
62 place a higher importance on such food attributes as organically produced and locally grown (Bellows
63 et al., 2010) and are more likely to buy local food (Feldmann & Hamm, 2015). Male consumers on the
64 other hand are less oriented towards healthy diets and sustainable consumption than females
65 (Cholette, Özlük, Özşen & Ungson, 2013), this aspect can also be seen among adolescents (Shepherd
66 & Dennison, 1996). An example of this type of behavior is that female consumers have more servings
67 of fruits and vegetables than males (Deshmukh-Taskar, Nicklas, Yang & Berenson, 2007). The gender
68 differences have been studied thoroughly among adult populations, but we do not know yet if they
69 exist among younger respondents.

70 It appears that the role of product origin in food product evaluation is complex and that it is related
71 to socio-demographic characteristics, as well as food product characteristics. This current study fills
72 the existing research gaps by exploring how the association between product origin and evaluation
73 varies by gender, age, and product type. To test the consumer response to the product origin neutral,
74 domestic, and local conditions were used. Because gender is a significant factor when considering
75 food preferences, both genders were analyzed independently.

76 Based on previous research, we tested four hypotheses:

77 H1 (origin): A closer geographical origin has a positive effect on product perception.

78 H2 (gender): Information about the product's geographical origin has a greater impact on product
79 perception among women as compared to men.

80 H3 (age): Information about product origin has a greater impact on the perception of the product
81 among older consumers than younger consumers.

82 H4 (product type): The effect of origin on product perception is dependent on the product type.

83 To gain an understanding of the effect of age on origin induced expectations, two separate studies
84 were conducted among different age groups. Young consumers in three groups at different stages of
85 early adulthood participated in the study. **The study was conducted among adolescents and university**
86 **students to anticipate the future consumer trends. Adolescents are not the primary decision makers**
87 **in their household, but they will be adults in a few years. University students will very soon gain a**
88 **considerable increase in purchasing power and are already at the center of market interest.**
89 Consumers evaluated the product pleasantness, the probability to choose the product, the overall
90 quality, and their willingness to pay. To gather information on whether the phenomenon is consistent,
91 independent of the product category, three different types of products were tested. The tested
92 components were meat, bread, and vegetables representing protein, grain/fiber and fruit/vegetable
93 components respectively, **which are typically included in the Finnish diet and were familiar to the**
94 **participants.** The tested products were chosen to simulate the different components of a typical
95 school/workday lunch.

96 **2. STUDY 1: The influence of product origin among the youngest consumers**

97 The origin induced food product experience was studied with vegetables among two age groups of
98 young consumers. At the beginning of the study the participants were provided with a questionnaire
99 containing brief information about the food product. Each respondent then completed the
100 questionnaire based on the information provided. The information focused on a product description
101 containing one of the three types of origin (neutral, domestic, local). The objective of this study was
102 to test the effect of the food product origin on the **perceived** product properties.

103 **2.1 PARTICIPANTS**

104 Eight hundred and sixty-one students at the 7th-12th grades (Finnish education system) filled out the
105 forms during their classes. Since the results between educational levels (lower and upper) differed
106 from each other significantly, both levels of education were analyzed separately. Of the students at
107 the lower educational level (7th-9th grades) (N=480) 46.0 % of the respondents were male and 53.1 %
108 female (4 missing). The average age **in this group** was 15.2 years (SD = 0.8). From the students at the
109 upper educational level (10th-12th grades) (N=381), 39.4 % were male and 59.8 % female (3 missing).
110 The average age **in this group** was 17.5 years (SD = 0.6). All the participants were volunteers and they
111 did not receive any compensation for their efforts. The study was approved by the Ethics Committee
112 of the University of Turku. All the participants were Finnish and the questionnaire was formulated in
113 Finnish. At the both education levels, lunch meals offered to students are free of charge.

114 **2.2 STUDY DESIGN**

115 Three different conditions with varied product origin were used (Table 1). The participants were asked
116 to give their response based only on the product information. Each description was coupled with a
117 generic picture of the product which was the same throughout all the forms concentrating on the
118 same type of product. The respondents among both tested age groups were completely randomized
119 within each group into one of three conditions.

120 **Table 1.** The description of different types of product origin in Study 1

Type of origin	Description
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Neutral	The lunch serving includes the salad buffet.
Domestic	The lunch serving includes the salad buffet where all the ingredients are domestically grown (in Finland).
Local	The lunch serving includes the salad buffet where all the ingredients are locally grown.*

121 *The names of the towns where the vegetables had been grown were included in the description of
 122 the local condition (maximum distance ~15 miles)

123 2.3 PROCEDURE

124 The participants were instructed to fill out the questionnaire only based on the provided information.
 125 The participants were told that the aim was to gather information on the factors affecting food
 126 choices, that the participation was completely voluntary and the data was gathered only if consent
 127 was given and that the responses were confidential and used only for research purposes.

128 The participants evaluated the product properties entirely based on the provided product information
 129 without access to the physical products. The evaluation was done in the context of the lunch serving;
 130 meaning that the described product was available as a part of the lunch buffet served in the school
 131 cafeteria. The task was to evaluate the product described in the questionnaire in relation to the
 132 following attributes on 7-point scales: the product's pleasantness (1 = extremely unpleasant, 7 =
 133 extremely pleasant), the probability that they would choose the product ('How probable would it be
 134 for you to choose this kind of product as a part of lunch serving?') (1 = highly improbable, 7 = highly
 135 probable), and the overall quality of the product scale (1 = extremely low quality, 7 = extremely high
 136 quality).

137 Gender and year of birth were included in the questionnaire.

138 2.4 DATA ANALYSIS

139 To study the effect of geographical origin on the evaluated product properties, analysis of variance
 140 was used. The difference between genders within each condition was tested with independent
 141 samples t-test.

142 Two sets of planned comparisons were executed to test whether closer geographical origin had a
 143 positive effect on the perceived properties of the product. The first test was done between neutral
 144 and domestic and the second between neutral and local origins. For testing purposes, both genders
 145 were tested separately. The tests were considered to be significant for $p < 0.05$.

146 The relationship between variables was tested by calculating correlation coefficients (Pearson's r)
 147 between variables. The internal consistency of the variables was tested using Cronbach's alpha.

148 2.5 RESULTS

149 The variables were well correlated (Table 2) and they showed high internal consistency (Cronbach's
 150 alpha 0.827). Due to the high internal consistency, a new scale was generated by computing the mean
 151 of the three variables (pleasantness, probability to choose, overall quality), which was called product
 152 perception.

153 **Table 2.** Intercorrelations of pleasantness, probability to choose, and overall quality in the study
 154 population

	1	2
1 Pleasantness		
2 Probability to choose	0.708**	
3 Overall quality	0.619**	0.535**

155 **Correlation is significant at the 0.01 level

157 **Table 3.** The mean values (SD) of the evaluated product perception of the vegetables grouped by
 158 gender [N] by the lower level students (7th-9th grades) and by the upper level students (10th-12th
 159 grades).

	LOWER SECONDARY LEVEL STUDENTS		UPPER SECONDARY LEVEL STUDENTS	
	MALE	FEMALE	MALE	FEMALE
Neutral	*4.29 (1.46) ^a [84]	*5.24 (0.97) ^a [75]	*5.32 (1.09) ^a [57]	*5.81 (0.82) ^a [73]
Domestic	*4.46 (1.32) ^a [65]	*5.08 (1.08) ^a [92]	5.34 (1.24) ^a [44]	5.70 (1.17) ^a [73]
Local	*4.89 (1.18) ^b [72]	*5.29 (1.04) ^a [82]	*5.31 (0.89) ^a [48]	*5.76 (0.96) ^a [81]

160 For each condition the statistically significant differences between genders are marked with * (p < 0.05)

161 Values followed by different letters showed significant differences in the planned comparisons (p < 0.05)

162 Among younger students, the girls give higher ratings than the boys in the neutral and domestic
 163 conditions for the product perception of vegetables (Table 3). Male respondents in this age group
 164 seem to respond strongly to the local origin in the local condition the gap between female and male
 165 respondents disappeared. Among female respondents, origin does not have any systematic effect.
 166 Among older students, the geographical origin induced no significant effect. In general, females
 167 evaluated vegetables more positively than males, but the absolute gender difference was smaller
 168 among younger students. Among older students, the valuation of vegetables had risen among the
 169 males. Females evaluated the product perception higher than males in all three conditions. The results
 170 of the planned contrasts conducted for both age groups do not show very strong evidence supporting
 171 Hypothesis 1 since only younger male respondents showed a positive response towards local origin.
 172 The results did not support Hypothesis 2 and 3, because either female or older respondents did not
 173 show a significant reaction based on the geographical origin.

174 3. STUDY 2: The influence of product origin among university students

175 This study was targeted towards university students to examine the effect of product type on origin
 176 induced experiences. Two different products: bread and meat were used. In addition to the product
 177 properties measured in Study 1, the effect of the product origin on the willingness-to-pay was studied
 178 because university students usually pay for their meal.

179 3.1 PARTICIPANTS

180 Twenty-one **course** groups consisting of six hundred and thirty university students filled out the forms
 181 during their classes. Altogether 47.6 % of the respondents were male and 52.4 % female. The average
 182 age of the participants was 22.9 years (SD = 4.7). All the participants were volunteers and they did not
 183 receive any compensation for their efforts. The study was approved by the Ethics Committee of the
 184 University of Turku. All the participants were Finnish and the questionnaire was administered in
 185 Finnish.

186 **3.2 STUDY DESIGN**

187 The same set up as in Study 1 was repeated with two types of product (bread and meat) in order to
 188 test the difference in the evaluations of two different products among same population. The
 189 respondents were completely randomized within each group into one of six conditions (product
 190 type/origin). **Included in the description of the local condition were the names of the towns where the**
 191 **vegetables had been grown (maximum distance ~25 miles)**

192 **3.3 PROCEDURE**

193 As in Study 1, the participants evaluated the product pleasantness, probability to choose the product,
 194 and overall quality on a 7-point hedonic scale. In addition, the participants were asked to evaluate in
 195 reference to the current price of the lunch serving, how much more or less they were willing to pay, if
 196 the described product was included in the lunch. For this question, a scale from – 50 % to + 50 % were
 197 used. The same demographic information was gathered as **in Study 1.**

198 **3.3 DATA ANALYSIS**

199 The same methods were applied to the statistical analysis as in Study 1.

200 **3.4 RESULTS**

201 **The variables showed high intercorrelations for bread (Table 4) and meat (Table 5). As in Study 1, the**
 202 **variables showed good internal consistency (0.821 for bread and 0.789 for meat) and a new scale**
 203 **called product perception was formed.**

204 **Table 4. Intercorrelations of pleasantness, probability to choose, and overall quality in the study**
 205 **population for bread**

	1	2
1 Pleasantness		
2 Probability to choose	0.663**	
3 Overall quality	0.642**	0.539**

206 ****Correlation is significant at the 0.01 level**

207 **Table 5. Intercorrelations for pleasantness, probability to choose, and overall quality in the study**
 208 **population of meat**

	1	2
1 Pleasantness		
2 Probability to choose	0.776**	
3 Overall quality	0.499**	0.402**

209 ****Correlation is significant at the 0.01 level**

210 **Table 6.** The mean values (SD) of evaluated **product perception**, and willingness-to-pay for bread
 211 products grouped by gender [N].

BREAD	Product perception		WTP [%]	
	MALE	FEMALE	MALE	FEMALE
Neutral	5.35 (0.84) ^a [56]	5.11 (1.20) ^a [51]	5.6 (14.5) ^a [56]	1.3 (14.1) ^a [51]
Domestic	*5.45 (1.04) ^a [47]	*5.90 (0.83) ^b [59]	2.5 (15.2) ^a [47]	6.4 (14.9) ^a [59]
Local	5.75 (0.97) ^b [50]	5.94 (0.89) ^b [56]	4.9 (11.3) _a [50]	6.5 (11.8) ^b [56]

212 For each condition the statistically significant differences between genders are marked with * (p < 0.05)

213 Values followed by different letters showed significant differences in the planned comparisons (p < 0.05)

214 Both in the domestic product and local product conditions, the female evaluations of **product**
 215 **perception** were more positive than in the neutral condition (Table 6). Male evaluations were more
 216 positive in the local product condition than in the neutral condition for pleasantness. Among the
 217 women, the local condition increased their willingness to pay for bread. **Males showed no significant**
 218 **changes considering willingness to pay.** Female **product perception** was more positive than male in
 219 the domestic condition.

220 **Table 7.** The mean values (SD) of evaluated **product perception**, and willingness-to-pay for meat
 221 products grouped by gender [N]

MEAT	Product perception		WTP [%]	
	MALE	FEMALE	MALE	FEMALE
Neutral	*5.40 ^a (0.98) [46]	*4.67 (1.46) ^a [59]	9.4 (25.4) ^a [46]	4.8 (22.8) ^a [59]
Domestic	*5.85 ^b (0.67) [50]	*4.90 (1.26) ^a [53]	*19.4 (25.3) ^b [50]	*5.6 (20.9) ^a [53]
Local	*5.95 ^b (0.75) [51]	*5.24 (1.13) ^b [52]	*21.4 (21.6) ^b [51]	*9.4 (20.6) ^a [52]

222 For each condition the statistically significant differences between genders are marked with * (p < 0.05)

223 Values followed by different letters showed significant differences in the planned comparisons (p < 0.05)

224 In the case of meat products, the male evaluations of **product perception** and WTP were higher in the
 225 domestic and local conditions than in the neutral condition (Table 7). Females evaluated a higher level
 226 of **product perception** in the local condition than in the neutral condition. **The difference between**
 227 **genders in WTP was significant for all the test conditions except in the neutral condition.**

228 **According to the conducted planned comparisons,** the results seem to confirm Hypothesis 1
 229 concerning the positive perception induced by a closer geographical condition. Domestic origin does
 230 systematically have a positive effect, but a local origin does not, in all cases, add any more value. The
 231 results do not support Hypothesis 2 about women being more sensitive towards the closer
 232 geographical origin, because the effect is not consistent with both products. Study 2 seems to provide
 233 some evidence supporting Hypothesis 3 about the effect of age on the product perception when
 234 compared to Study 1. The effect of geographical origin seems to be consistent among university

235 students. Hypothesis 4 is not confirmed as regards the effect of product type. Product type seems to
236 have a significant effect on the origin induced product perception with meat and bread.

237 4. DISCUSSION

238 We explored the effect of geographical food product origin (domestic and local) on the evaluations of
239 vegetables, bread, and meat products among Finnish adolescents and young adults. The results of our
240 study show that the geographical origin does alter the **perceived** quality. The results vary according to
241 product type, gender, and the age of the respondents.

242 Generally, the women in both age groups **evaluated the properties of vegetables as being better than**
243 **the men in all the test conditions**, but at the upper level (10th-12th grades) the differences have
244 equalized. A study by Caine-Bish & Scheule (2009) showed that vegetables do not appeal to male
245 consumers in pre-teens, but for older teenagers the preference is similar among both genders.
246 Surprisingly among the upper level students neither the domestic or local origin induced any
247 differences in product evaluations. This age group seems to be indifferent to the product origin and
248 there may be other more important factors affecting food preferences. In addition, no effect was
249 found among the lower level (7th-9th grades) female students. This is a rather interesting finding, since
250 origin typically induces some kind of expectations towards the product in question. The male
251 respondents at the lower level were indifferent towards domestic products, but evaluated **the product**
252 **perception of** local products as being significantly **better**. Nevertheless, it is unclear why this **was**
253 **found** only at the lower level, not the upper. To the authors' knowledge, there are no previous studies
254 showing a similar effect. The intake of fruits and vegetables is **often** below recommended levels among
255 adolescents and for the boys the level is even lower (Vereecken et al., 2015; Diethelm et al., 2012).
256 Bagdonis, Hinrichs & Schafft (2009) suggested that using local food in state schools as a source of more
257 agreeable vegetables, might contribute to the improvement of student nutrition and well-being.

258 The results among the university students seem to differ from the results among the lower and upper
259 education level. In this group, the female respondents seemed to value a domestic origin for the bread
260 product, but locality did not add significantly to the appeal of evaluated properties. However, although
261 domestic bread did not show any increase among male participants, **for the local product the product**
262 **perception was significantly higher**. The male consumers had a notably greater preference for meat
263 products than the females, **as the evaluated product perception was significantly higher in each test**
264 **condition**. This is in agreement with previous research and can at least partly be explained by female
265 consumers being sensitive to animal welfare and ecological issues (Beardsworth et al., 2002).
266 Additionally, gender induced differences originate from the fact that a significantly larger proportion
267 of men than women think that meat is an essential part of a healthy diet (Beardsworth et al., 2002).
268 When shifting from neutral to local via domestic origin, a gradual increase can be seen for female
269 consumers when evaluated **product perception**. One possible explanation for the differences between
270 product types and genders are that meat is not an especially appealing category for women **as bread**
271 **is not** for men. When the product category itself is not interesting, then the local origin may add
272 something extra to the perceived quality overcoming the low original appeal. A study by Teuber,
273 Dolgoplova & Nordström (2016) showed that attached information affects the hedonic evaluations
274 and can also alter the **perceived** taste.

275 Local food can be utilized as a tool to re-connect people to the food system, especially in a school
276 context (Vallianatos, Gottlieb & Haase, 2004). The current study shows that local origin may have an

277 impact on making food more appealing, inferring that the origin could be used to guide consumers
278 towards healthier food choices. This information should interpreted cautiously since the appeal of
279 local food might not exceed that of fast food, thus further studies are required. Previous findings
280 (Bellows et al., 2010; Hempel & Hamm, 2016) show that generally speaking the attribute locally grown
281 was more important for female respondents than for male **in the adult population**, but no significant
282 differences were found in adolescent population (Robinson-O'Brien et al., 2009). This effect was not
283 seen among either gender at the upper education level or in female respondents at the lower
284 education level, but only among males at the lower level. The results from our study indicate that the
285 phenomenon is more complex and the product category and age also seem to have a major effect.
286 There seems to be some other latent factors that do exceed the expectations created by domestic or
287 local origin and further studies are required on the effect of individual preferences in relation to the
288 origin of food.

289 For bread products in the female population, the WTP **for local products** was significantly higher
290 compared to the neutral products, but almost equal to domestic products. For male respondents, no
291 consistent origin induced effect on the WTP **was found**. The overall preference for meat for male
292 consumers can be seen also in the willingness-to-pay where it is actually 9.4 % higher even for
293 products with a neutral origin. In addition, both the domestic and local origin significantly increase the
294 WTP for the meat product. Female respondents also show gradual increase in the WTP for meat, but
295 the differences are not statistically significant. These results are consistent with those of Hempel and
296 Hamm (2016) who showed that willingness-to-pay for local products is also product related and that
297 when moving towards a more specific origin, the WTP increases (Stefani et al., 2006). As opposed, for
298 example, to a steak, the WTP is lower for flour and butter (Hempel & Hamm, 2016). The reason for
299 the lower WTP was explained by the initially lower price levels and the fact that flour and butter are
300 processed products, thus inferring a higher WTP for unprocessed local foods.

301 The results indicate that consumers are willing to pay a premium for a desirable product origin which
302 **confirms** earlier studies (Feldmann & Hamm, 2015). Campbell et al. (2014) found that university
303 students have a higher WTP for local foods in general. Even when the product is not appealing itself,
304 locality can still increase the willingness-to-pay. **Information about local origin may add appeal to an
305 otherwise non-desirable product**. In our study, **women consistently evaluated the quality of meat
306 products lower than the males, but the local product was evaluated as being significantly better than
307 neutral**. Local food is in general considered tastier and of a better quality, and consumption is also
308 driven by unselfish motives such as desire to support local economy (Feldmann & Hamm, 2015).

309 Deliza and MacFie (1996) concluded in their extensive review that expectations do modify the quality
310 **perceived**, for example, due to assimilation; this is when consumer moves the actual perceived quality
311 towards the expected. Because of this it is important to gain knowledge about what kind of
312 expectations the different types of extrinsic cues create. In this study the extrinsic cue investigated
313 was the geographical origin of the product, which is typically considered to create positive
314 expectations. The product origin has been shown to be associated positively when moving towards a
315 smaller geographical region (Wirth, Stanton & Wiley, 2011). According to the study by Levi et al.
316 (2006), product label information is more important to women, but the present study raises the
317 possibility that it is not given as it is also strongly dependent on the product type and individual
318 preferences. If the product type is generally appealing, the local origin does not seem to add any more
319 value compared with a product of domestic origin.

320 When information about product origin is provided to the consumers, it certainly creates expectations
321 about the product quality for most people (Piqueras-Fiszman & Spence, 2015). When the effect of
322 product origin is recognized and found to be beneficial, it could be used as a marketing tool. To fully
323 benefit from origin created expectations, the signage or information should be easily to absorb by the
324 consumers (Campbell et al., 2014). Our main purpose was to study whether the quality expectations
325 still apply regardless of the gender and age of the respondents, or the food product type. There are
326 also underlying factors beyond individual preferences which were not covered by this study. This
327 experiment found evidence that gender and age can have a significant impact and should be taken
328 into consideration. As the results in our study show, the phenomenon needs to be studied more
329 thoroughly because it **appears to vary depending on the** product category and consumer group.

330 There are several limitations concerning the results of this study. Both of the studies were executed
331 in one country concentrating on a certain region. Different countries with various types of cultures
332 and individual preferences may have a significant impact on the study results. The studies were not
333 replicated with **all products in all age groups, so sometimes we could not clearly distinguish between**
334 **the effect of age and the effect of product type** in the results. As the results of the current study show,
335 there are several factors affecting the responses. Because of this, there is no evidence that the results
336 can be applied to other age groups. All the participants in both of the studies were young consumers.
337 Students at the lower and upper education level primarily still live with their parents and are not
338 responsible of household purchase decisions. University students on the other hand are typically price
339 sensitive which may be a decisive factor considering food choices. For these reasons the applicability
340 to real-life purchase decisions is uncertain and the origin induced appeal may be over-ridden by other
341 more important factors. Older consumers, who are permanently involved in working life, were not
342 studied; this group may have a different emphasis for their food choices. In addition, the current study
343 was based only on the expectations created by the information concerning the product origin, not the
344 actual physical product. The results might be different if the study was replicated with a similar set-up
345 but included tasting the actual product. Due to this the applicability on actual food choice and
346 purchase decisions remain to some extent uncertain.

347 **5. CONCLUSIONS**

348 This paper provides evidence of how the geographical origin of food product effects the consumer
349 experience with different types of products. The test conditions were based only on the expectations
350 created by the information generated by the product origin, not the actual perceived quality. It is
351 commonly considered that domestic and local products are evaluated to be very good quality when
352 compared to those of neutral or foreign origin. Our results show that this is not necessarily so, as there
353 are several moderating factors such as gender, age, and product type. The product type has a very
354 strong effect. When the product preference is initially low, then especially locality induces greater
355 changes in the **perceived** product quality. Female university students responded equally positively to
356 both domestic and local origins in the case of bread, but for the meat product only the local origin
357 induced a positive reaction. In this population, the male respondents reacted only to the local origin
358 in the case of bread, but for meat the domestic product provided a positive response and the local
359 product did not add any more value. Among young consumers (lower/upper education level) only men
360 in the lower level (7th-9th grades) responded positively to the local origin, while for the others, origin
361 did not induce any kind of effect. Since fruit and vegetable consumption among this group is low, this
362 information could be used as a tool to increase the appeal of these products.

363 Providing information about the origin for consumers, in most cases, will create expectations about
364 the product quality. Typically, local food is expected to possess many desired qualities. This study has
365 identified that even domestic and local origins do induce positive responses among consumers, the
366 phenomenon is not consistent through product category, gender, and respondent age. There appear
367 to be more factors, on an individual level, which need to be studied more thoroughly.

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