
General image of and beliefs about European food in two mainland Chinese cities: Shanghai and Xi'an

British Food Journal

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Citation

[Wang, O.](#), [Gellynck, X.](#) and [Verbeke, W.](#) (2015), "General image of and beliefs about European food in two mainland Chinese cities: Shanghai and Xi'an ", *British Food Journal*, Vol. 117 No. 5, pp. 1581-1595. <https://doi.org/10.1108/BFJ-07-2014-0232>

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28 **Introduction**

29 Rapid growth of personal income is shifting mainland Chinese food consumption patterns,
30 which includes that more and more Chinese consumers increase their consumption of
31 imported food products (Gale and Huang, 2007). More experiences with foods of non-
32 Chinese origin are being brought back to China because of the enormous amount of Chinese
33 who study, work or have tours overseas: around one hundred million person-trips in 2013
34 (first place in the world) (Yan, 2014); almost 450 thousand students were studying abroad in
35 2013 (first place in the world) (Netease, 2013). The accession to the World Trade
36 Organization made mainland China open its markets for the importation of almost all
37 agricultural products, and foreign companies can now directly exploit this market (Hu et al.,
38 2007). All these developments are boosting mainland China to become the most potential
39 market for local food products from around the world. Actually, the potential showed
40 extremely huge in recent years: the value of imported processed foods/beverages in mainland
41 China had a yearly average growth rate of 27.7% from 2008 to 2012 (Alice, 2013).

42 Europe owns plenty of local and traditional food resources, an essential part of the European
43 culture and culinary heritage (Guerrero et al., 2009). Each European country has traditional
44 eating cultures and habits related with specific local food products, especially in the southern
45 parts of Europe with a wider variety of local food resources (Jordana, 2000). The European
46 food industry is mainly composed of small and medium sized enterprises, and these
47 enterprises still face the challenge to maintain or expand their market share in an extremely
48 competitive globalization era (Banterle et al., 2009, Guerrero et al., 2009). The rise of
49 mainland Chinese food markets will provide an unlimited 'new world' for European local
50 food producers to expand the market share of their products. A recent event is the best proof
51 of this point of view: China now is the biggest wine export market of the European Union
52 (EU), with a fast-growing importation amount from 64 million liters in 2009 to 257 million
53 liters in 2012 (Alinna, 2013).

54 Therefore, a need exists for European local food producers and marketers to comprehensively
55 understand mainland Chinese consumers. It is necessary to gain knowledge in terms of the
56 general image of and beliefs about European food by mainland Chinese consumers, because
57 consumers' general image and beliefs toward a product have a strong influence on their

58 purchase and consumption behaviors (Almli et al., 2011, Hawkins and Mothersbaugh, 2009,
59 Mitchell and Olson, 1981). Knowledge about these issues is the basis for marketers to
60 develop appropriate marketing and communication strategies for their products (Hawkins and
61 Mothersbaugh, 2009).

62 To our knowledge, no consumer-driven empirical research has been done specifically in the
63 field of European food targeted at the mainland Chinese market. So, this study aims at filling
64 this gap by providing comprehensive knowledge about mainland Chinese consumers' general
65 image of and beliefs toward European food. According to the beliefs, two dimensions are
66 explored in this study. The first dimension is related to product beliefs, which refer to what
67 mainland Chinese consumers believe a European food is. The second dimension relates to the
68 perceived profiles of people who often consume European food in mainland China (consumer
69 beliefs) (Almli et al., 2011, Vanhonacker et al., 2010a, Vanhonacker et al., 2010b).
70 Furthermore, correlation between the general image of European food and the product beliefs
71 is also examined to identify the most important beliefs driving the composition of a positive
72 image of European food in mainland Chinese consumers' minds. In addition, consumer
73 segments are recognized by cluster analysis based on the product attribute beliefs.

74 To achieve the objectives of this study, a web-based questionnaire was designed and
75 distributed for data collection in two mainland Chinese cities: Shanghai and Xi'an.
76 Descriptive analysis, cluster analysis and Partial Least Squares Regression (PLSR) were used.

77

78 **Materials and methods**

79 *Participants and procedures*

80 Quantitative data was collected during December 2013 through an online consumer survey. A
81 mainland Chinese research agency was hired for the fieldwork data collection. Two cities,
82 Shanghai and Xi'an, were selected for data collection in order to allow recognizing
83 similarities and differences of consumers' product beliefs, perceived profiles and general
84 image of European food between mainland Chinese regions with different local dietary
85 customs, development levels and degrees of influence by foreign cultures. As an international
86 metropolis and the most developed city of mainland China, Shanghai has gained most
87 exposure to Western (food) cultures in mainland China, while Xi'an is a more traditional, less

88 developed and far lower in per capita income (Liu et al., 2011; National Bureau of Statistics
89 of the People's Republic of China, 2013). Besides, Shanghai and Xi'an locate on two Chinese
90 diet-cultural circles with different local flavor preferences and food traditions or customs,
91 namely the circle of Yangtze River downstream region for Shanghai and the circle of Yellow
92 River midstream region for Xi'an (Zhao, 2003).

93 Participants of this study were asked to complete a web-based questionnaire. They were
94 members of an online consumer panel of the research agency. The questionnaire was
95 distributed to participants with limits on the IP address. Those participants, who had carefully
96 completed the questionnaire, received a monetary incentive. A total of 541 valid response
97 were obtained for this study, 259 from Shanghai and 282 from Xi'an. Table 1 presents the
98 detailed socio-demographic characteristics of the total sample and the regional subsamples,
99 including age, gender, single status, city and financial situation of household. Based on
100 previous studies (Pieniak et al., 2009, Almlı et al., 2011, Vanhonacker et al., 2010b,
101 Vanhonacker et al., 2010a), the financial situation of households was subjectively assessed by
102 the study participants on a 7-point scale arranging from 'difficult' to 'well off'.

103 Ethnic food consumption may be influenced by consumers' overseas experiences, which can
104 evoke their memories of trips to foreign countries (Verbeke and Lopez, 2005). In that context,
105 this study also assessed participants' overseas experiences in terms of region and duration
106 levels (Table 1). Information about the duration of their overseas experience was gathered
107 through an 8-point scale ranging from 'never' to 'longer than five years'. Information about
108 the region where overseas experience was gained was gathered by using a multiple choice
109 question with options of six continents: Asia (outside China), Europe, Northern and Southern
110 America, Oceania and Africa. Generally speaking, participants from Shanghai were more
111 overseas experienced than their counterparts from Xi'an, with a lower percentage of people
112 who had never gone abroad before in Xi'an, and a higher share of people having overseas
113 experience of long-term and a wide-range of foreign regions among participants from
114 Shanghai. This matches with the level of development and income of the two cities included
115 in the study.

116 >> Insert Table 1

117

118 *Questionnaire content and pretest*

119 Participants to this study were probed about their consumer beliefs towards and general image
120 of European food. Before answering questions about European food, participants were
121 presented the following definition of European food: “local food products imported from
122 Europe or the food with European style or flavor that can be bought for consumption at home,
123 or consumed in restaurants or other places of China.”

124 The questionnaire was translated from English into Chinese. Two rounds of pretests were
125 performed. Eight and ten mainland Chinese participants joined in the online pretests in round
126 one and two, respectively. Based on their responses, the arrangements and the Chinese
127 expressions of questions on the questionnaire were modified.

128

129 *Measures*

130 Before this study, the authors had conducted a qualitative research with a web-based free
131 word association test to elicit the perceptual associations of European food by Chinese
132 consumers in June 2012. Based on the insights from this qualitative research, 14 items (shown
133 in Table 2) were selected to examine participants’ product attribute beliefs about European
134 food in a quantitative way in the present study. Participants were asked to indicate their
135 degree of agreement t with each of the statements presented in Table 2 on a 7-point Likert
136 agreement scale, with response categories: 1= disagree strongly, 2= disagree moderately, 3=
137 disagree slightly, 4= neither agree nor disagree, 5= agree slightly, 6= agree moderately, and
138 7= agree strongly.

139 >> Insert Table 2

140

141 Participants’ general image toward European food was measured by the question: “When you
142 think about the image you have of European food in general, how would you describe your
143 personal feelings about it?” The answer categories were presented on a 7-point interval scale:
144 1= very negative, 2= moderately negative moderately, 3= slightly negative, 4= neither
145 negative nor positive, 5= slightly positive, 6= moderately positive, and 7= very positive. This

146 design was adopted from the study by Almlı et al. (2011), who examined the general image of
147 traditional food in European consumers' minds.

148 To assess participants' perceived profiles about European food, 18 segment profiling
149 variables were included in the study, as shown in Table 3. Participants were asked to indicate
150 to what extent they thought the typical user (or non-user) of European food in mainland China
151 would possess these characteristics. A seven-point scale with response categories from 7=
152 "typical to a user of European food" to 1= "typical to a non-user of European food". The
153 design was inspired by a study by Vanhonacker et al. (2010a), who measured the projected
154 image of a (non-)traditional food consumer in European consumers' minds.

155 >> Insert Table 3

156

157 *Data analysis*

158 Data analyses were performed using the statistical software tools SPSS 22.0 and Unscrambler
159 X 10.3. First, the perceived profiles of typical user (or non-user) of European food was
160 analyzed by descriptive analysis (SPSS 22) using the mean values of the segment profiling
161 variables (Table 3), both for the total sample and the subsamples of the two cities. Second, in
162 a similar vein, descriptive analyses were conducted for the data of participants' general image
163 and product attribute beliefs of European food. Percentages of participants' scores on the
164 general image scales were also calculated for the total sample and the subsamples of the two
165 cities as a part of descriptive analyses. Third, cluster analysis (SPSS 22) was conducted using
166 the product attribute beliefs (Table 2) as segmentation variables. It followed a two-step
167 design: hierarchical clustering with Ward's method and squared Euclidean distance was
168 performed, followed by a K-means cluster analysis with the initial cluster centers from the
169 first step (Milošević et al., 2012, Vanhonacker et al., 2010b). Cross-tabulation with χ^2 tests (a
170 confidence interval = 95%) (SPSS 22) were applied to recognize significant differences
171 across segments, based on socio-demographic variables and variables of overseas experience.
172 Fourth, partial least squares regression (PLSR) (Unscrambler X 10.3) was employed to
173 associate participants' product attribute beliefs of European food with their general image of
174 European food (Almlı et al., 2011). Three models were built for the total sample and the

175 subsamples of the two cities, with the full cross validation and the Jack-knife uncertainty
176 testing of 95% confidence interval (Thybo et al., 2004, Almli et al., 2011, Vanhonacker et al.,
177 2010a).

178

179 **Results and discussion**

180 *Perceived profiles of European food (non-)users*

181 **Figure 1 shows the participants' perceived profiles of typical users (or non-users) of European**
182 **food in mainland China both for the total sample and the subsamples of the two cities.**

183 Generally speaking, the three analyses result in very similar mean values. The perceived
184 profile of typical users of European food is most strongly linked to 'people who have stayed
185 overseas for a long time' (mean values exceeded 6 for all of the three samples). It is also
186 strongly associated with 'people who have experience going abroad', 'families with high
187 income', 'people who visited Europe', 'young people' and 'people living in big city'(values
188 above 5.5). Only a slight difference is found in the mean values between 'couples' and 'single
189 people' (around 5) as well as between 'females' and 'males' (around 4.5). Participants also
190 associate 'busy people (occupied)' and 'families with middle income' with the typical user of
191 European food (values between 4 and 4.9).

192 The perceived profile of non-users of European food is most strongly linked to 'people living
193 in rural areas', 'family with low income' and 'old people' (values below 3). Meanwhile,
194 'middle aged people', 'people living in a small city' and 'housewife/houseman' are also
195 linked to non-users of European food (values below 4).

196 In sum, the perceived profiles of typical users of European food are: having overseas
197 experiences, having high income, young or living in a big city. This is in line with the finding
198 by Verbeke and Lopez (2005) that ethnic food consumption is influenced by consumers'
199 overseas experiences. Furthermore, the perceived profile is similar with the profile of
200 Western-style food consumers in China as identified by Curtis et al. (2007) and Zhang et al.
201 (2008): high income, residence in large cities or young adults. Moreover, there are large gaps
202 of development and average income levels between rural and urban areas as well as between
203 big and small cities in mainland China. The finding fits with the social reality that Chinese
204 consumers living in large cities have more opportunities of exposure to foreign cultures than

205 their counterparts in small cities or rural areas (Liu et al., 2011, Sicular et al., 2007, Wang and
206 Shi, 2011).

207 >> Insert Figure 1

208

209 *General image of European food*

210 Figure 2 shows a very positive image of European food among mainland Chinese consumers.
211 Most of the participants (80%) have chosen the positive response categories from ‘slightly
212 positive’ to ‘very positive’. None of the participants have chosen the response category ‘very
213 negative’. Participants were more likely to report a positive image of European food in
214 Shanghai (85.3%) than in Xi’an (75.2%). This finding fits with the perceived profiles of
215 typical users of European food, namely ‘people living in big cities’, as Shanghai is a city
216 bigger and much more developed than Xi’an.

217 >> Insert Figure 2

218

219 *Attribute beliefs about European food*

220 The mean values of attribute belief items for European food range from 4.58 to 5.70 for the
221 total sample (Table 4). A Cronbach’s α of 0.83 reveals a good internal reliability of the 14
222 items included in the study. The highest mean values are found for ‘expensive’ and ‘delicate
223 appearance’. While ‘healthy’ and ‘unfamiliar’ have lowest mean values.

224 >> Insert Table 4

225

226 *Consumer segments of European food*

227 The cluster analysis resulted in a three-segment solution. Participants were clustered based on
228 the 14 attribute belief items. Table 5 shows the size and mean score per segmentation variable
229 for the total sample.

230

231 Segment 1 contains 29% of the sample. Its mean scores of 13 items (except ‘unfamiliar’) are
232 higher than those of the other two segments, especially for four items with at least one score

233 point more: 'tasty', 'healthy', 'fashionable' and 'safe'. Meanwhile, segment 1 indicates the
234 lowest score on the item of 'unfamiliar' among the three segments. Therefore, participants of
235 this segment have a good impression on the safety, health and taste of European food. They
236 are more likely to consider 'consuming European food' as being 'fashionable', 'romantic' and
237 'upscale'. They are also more familiar with European food than participants in the other two
238 segments. All in all, participants in this segment have positive impressions toward European
239 food. Therefore, segment 1 is labeled as 'positive-beliefs' as the members of this segment
240 reported the most positive attribute beliefs about European food.

241 Segment 2 includes 26.4% of the sample. By contrast with segment 1, its mean scores of 13
242 items (except 'unfamiliar') are lower than that of the other segments, especially with five
243 items having mean scores situated in the range of the negative scale anchor (below 4): 'tasty',
244 'healthy', 'fashionable', 'romantic' and 'upscale'. As a result, segment 2 is named 'negative-
245 beliefs' as the members of this segment reported mostly negative attribute beliefs about
246 European food.

247 Segment 3 is the largest segment, accounting for 44.6% of the sample. The mean scores of 13
248 items (except 'unfamiliar') for this segment are between those of the other two segments. The
249 segment is typified by the highest mean scores for the item 'unfamiliar' among all segments.
250 Therefore, we define this segment as the 'unfamiliar' as the members of this segment are
251 largely unfamiliar with European food. Food customs and cultures are totally different
252 between China and Western countries (Dang, 2010; Civitello, 2011). Only since the past three
253 decades, with the Chinese market opening up to the World, common people have started to
254 get opportunities to experience Western dietary cultures and to consume Western food
255 products. By contrast to the foods in their own traditional dietary system, most of mainland
256 Chinese consumers are not familiar with European (or Western) food products. This might be
257 the reason why this 'unfamiliar segment' includes the largest share of study participants in
258 comparison with the other two segments.

259 >> Insert Table 5

260 Regarding socio-demographic characteristics (Table 6), cross-tabulation with χ^2 tests reveal
261 significant differences across the three segments for city ($\chi^2= 11.5$, $p=0.03<0.05$), single
262 status ($\chi^2= 14.7$, $p=0.001<0.05$) and financial situation ($\chi^2= 66.6$, $p<0.001$), while no

263 significant differences have been found for gender and age ($p>0.05$). The participants in
264 Shanghai, being non-single or having a household financial situation of ‘moderate-well off’
265 are more apparent in the positive-belief segment compared to the negative-belief segment.
266 While participants in Xi’an, being single or having household financial situations from
267 ‘moderate’ to ‘difficult’ are present more in the negative-belief segment compared to the
268 positive-belief segment.

269 Concerning overseas experience, cross-tabulation with χ^2 tests indicate significant
270 differences among the three cluster segments for all variables shown in Table 6: duration
271 ($\chi^2= 68.5$, $p<0.001$); Asian ($\chi^2= 33.4$, $p<0.001$) and Europe ($\chi^2= 57.8$, $p<0.001$). The
272 positive-belief segment is typified by the largest share of participants who have overseas
273 experience of ‘more than one month’ and/or have visited Europe among the three segments.
274 This segment contains also the smallest share of participants who have never gone abroad.
275 Further, the negative-belief segment contains the largest share of participants with no
276 overseas experience as well as the smallest share of participants who have overseas
277 experiences for either duration or region. Additionally, the unfamiliar segment includes the
278 largest share of participants who have overseas experiences shorter than one month or have
279 visited countries in Asia (outside China). Obviously, these findings confirm the strong
280 influence of overseas experiences on mainland Chinese consumers’ product beliefs about
281 European food. The positive product beliefs of European food are more likely to be made by
282 those mainland Chinese consumers who have a long-term overseas experience (e.g. more than
283 one month) or have visited Europe.

284 >> Insert Table 6

285

286 The findings in this section are generally in line with the perceived profiles of typical users of
287 European food: having high income, living in a big city or having overseas experiences (long-
288 term or visited Europe).

289

290 *Association between general image and attribute beliefs*

291 Three PLSR models were built to explore the relationships between the attribute belief items
292 and the general image of European food, both for the total sample and the subsamples of the

293 two cities. All results are shown for two PLSR components models. As shown in Table 7, the
294 three models explain from 34% to 39% (cross-validations from 27% to 34%) of the variations
295 for the general image of European food. The variances of the models are not high. This
296 reveals that the associations between the general image and the product beliefs are very
297 individual so that no common model will be suitable for all participants (Almli et al., 2011).
298 Table 7 presents the weighted (statistically significant) regression coefficients of the three
299 models. Twelve product belief items are positively linked to the general image of European
300 food except 'sweet' and 'unfamiliar'. The coefficient for 'safe' is higher than other items for
301 the all three models. This indicates that 'safe' is the most important attribute belief linked to a
302 positive image of European food by mainland Chinese consumers. This fits with the severe
303 food safety situation in mainland China and consumers' related concerns (Liu et al., 2013;
304 2014). In recent years, a great number of food safety events suddenly emerged in mainland
305 China, leading to a ruined trust by Chinese consumers to domestic food industry (Zhou et al.,
306 2012). By contrast, Western food products are often considered as having reliable guarantee
307 of food safety by mainland Chinese consumers. This is particularly the case in the past years
308 as China has seen an huge demand of infant food formulas from Western countries after the
309 San Lu milk scandal in 2008 (Zhou, 2012).

310 'Unfamiliar' correlates with a negative image of European food in all of the three models.
311 Familiarity is an important motive for consumer's choices of food products in general
312 (Steptoe et al., 1995) and for openness to using new or novel foods in particular (Verbeke,
313 2005). Chinese consumers' unfamiliarity with European food is a big obstacle for mainland
314 Chinese consumers to form a positive image and attitude.

315 'Upscale', 'fashionable' and 'romantic' contribute to the positive image of European food in
316 the models for the total sample and the subsamples of the two cities. The three items reflect
317 the symbolic values of European food to mainland Chinese consumers. Symbolic values are
318 the extra values formed in consumers' minds based on their early memories or impressions
319 towards a special food product such as ethnic or exotic foods (Verbeke and Lopez, 2005;
320 Vanhonacker et al., 2010a; Lupton, 1994). The three symbolic values of European food are in
321 line with the extra values of Western-style food products for Chinese consumers mentioned
322 by some scholars: the consumption of Western food or other Western imported products is

323 considered as being fashionable, a status symbol and an aesthetic and emotional pleasure by
324 mainland Chinese consumers (Zhou and Hui, 2003, Curtis et al., 2007).

325 Regarding sensory attribute beliefs, 'delicate appearance' (all the three models) and 'tasty'
326 (the models for the total sample and the subsample of Xi'an) are positively associated to the
327 general image of European food. While 'sweet' is a negative driver for it (the models for the
328 total sample and the subsample of Xi'an). The monotonous taste, sweetness in particular is
329 another obstacle for mainland Chinese consumers to have a positive image of European food.
330 Additionally, 'European heritage' (all the three models) and 'healthy' (the models for the total
331 sample and the subsample of Shanghai) positively influence the general image. 'Simple
332 preparation', 'wide assortment' and 'convenience' are positively linked to the general image
333 in only the model for the subsample of Shanghai. Only the item 'expensive' does not show a
334 significant influence on the general image in each of the three models.

335 In general, the model for Shanghai shows more significant relationships (twelve) than that
336 (eight) of Xi'an. This indicates a more complicated construct of attribute beliefs related to the
337 general image of European food by consumers in Shanghai compared to Xi'an. The construct
338 for consumers in Shanghai includes the attribute beliefs which can be obtained directly from
339 consumption experiences such as cooking experiences (e.g. 'simple preparation' and
340 'convenience') or eating experience (e.g. 'tasty') (Oude Ophuis and Van Trijp, 1995). By
341 contrast, the construct for consumers in Xi'an contains the product beliefs which can be
342 gained without consumption experiences (e.g. 'symbolic values', 'European heritage', 'safe',
343 'unfamiliar' and 'delicate appearance'), and it also includes the attribute belief related to
344 sweetness (Oude Ophuis and Van Trijp, 1995).

345 >> Insert Table 7

346

347 **Conclusions**

348 The demand for imported food products is growing dramatically in mainland China. This
349 brings a great opportunity for European food marketers to exploit this huge and promising
350 market so that they can expand their market share in an extremely competitive globalization
351 era. This is the first study to present information about consumer beliefs, general image and

352 consumer segments in relation to European food in mainland China. European food has a
353 unanimously positive image among mainland Chinese consumers. Furthermore, the
354 characteristics of consumers of typical European food in mainland China are high income,
355 having at least some overseas experience, having visited Europe or living in a big and
356 developed city. In addition, 'safe' and 'upscale' are the most important attribute beliefs
357 driving mainland Chinese consumers to have a positive image of European food; while
358 'unfamiliar' and 'sweet' are the most negative drivers of European food's image.

359 The findings can enlighten European food marketers to develop effective product positioning
360 and marketing strategies in the mainland Chinese food market. Efforts should be done to keep
361 or strengthen the advantages of European food such as 'safety assurance', as well as to
362 improve its disadvantages such as 'monotonous (sweet) taste' and 'unfamiliarity' to mainland
363 Chinese consumers. Such efforts will help more mainland Chinese consumers to know what
364 the real European food is, and to familiarize with it. This will become the solid basis for
365 European food marketers to succeed with traditional European products in mainland China.

366 This study focused on European food as a general type of food, without any specific food
367 product at the forefront. Future studies could involve specific food products or product
368 categories and assess Chinese consumers' attitudes, preferences and behaviors towards
369 European food. Given the nature of our survey, i.e. the use of an online questionnaire, and the
370 relatively small sample does not fully represent the demographic characteristics of mainland
371 China as well as the two cities involved.

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Table 1.

Socio-demographic details and overseas experiences of the sample

	Total sample	Shanghai	Xi'an
Sample size (N)	541	259	282
Gender (%)			
Male	42.7	38.6	46.5
Female	57.3	61.4	53.5
Single status (%)			
Yes	29.6	23.9	34.8
No	70.4	76.1	65.2
Age			
Mean	35.63	37.16	34.23
SD	9.12	8.68	9.31
Range (years)	19- 68	19- 59	19-68
19- 30 (%)	32.2	24.3	39.4
31-40 (%)	31.2	34.4	28.3
> 40 (%)	36.6	41.3	32.3
Financial Situation (%)			
Difficult- Moderate	10.4	5.4	14.9
Moderate	24	20.1	27.7
Moderate-Well off	65.6	74.5	57.4
Experience aboard (%)			
Never	43.8	31.3	55.3
Duration			
Less than one week	12.8	13.9	11.7
One week to one month	24.8	30.1	19.9
More than one month	18.6	24.7	13.1
Region (multiple choice)			
Asia (outside China)	54.2	65.3	44
Europe	27.9	35.9	20.6
Other regions	22	29.3	15.3

Table 2.

Attribute beliefs about European food

Attribute belief	Measurement Item
Expensive	European foods are expensive.
Delicate appearance	European foods have delicate appearances.
Safe	The safety of European food is trustworthy.
Sweet	European foods are too sweet.
Wide assortment	There is a wide assortment of European foods.
Romantic	When eating or thinking about European foods, it brings you romantic feeling.
Convenience	It is convenient to prepare or eat European foods.
Simple preparation	It is simple to cook or prepare European foods.
Tasty	European foods are tasty.
Fashionable	Eating European food is fashionable.
European heritage	European food is cultural heritage of Europe.
Upscale	European food is upscale.
Healthy	Eating European foods is good for health.
Unfamiliar	European food is unfamiliar.

Table 3.

Segment profiling variables

People who have stayed in overseas for a long time	Housewives/Housemen
People who have experience going abroad	Females
People who visited Europe	Males
Families with high income	Old people
Families with middle income	Middle aged people
Families with low income	Young people
Couples	People living in big city
Single people	People living in small city
Busy people (occupied)	People living in rural area

Table 4.

Mean values and standard deviations (SD) of attribute beliefs for the total sample (n=541)

Attribute	Mean	SD
Expensive	5.70	1.033
Delicate appearance	5.35	1.041
Safe	5.19	1.136
Sweet	5.11	0.979
Wide assortment	5.06	1.214
Romantic	5.01	1.162
Convenience	4.99	1.059
Simple preparation	4.90	1.165
Tasty	4.89	1.079
Fashionable	4,89	1.230
European heritage	4.88	1.187
Upscale	4.82	1.212
Healthy	4.68	1.165
Unfamiliar	4,58	1.398

Table 5.

Sizes and mean scores of consumer segments

Attribute beliefs	Segment 1	Segment 2	Segment 3
	Positive-beliefs	Negative-beliefs	Unfamiliar
Delicate appearance	6.04	4.46	5.43
Simple preparation	5.61	4.51	4.66
Tasty	5.86	3.94	4.83
Healthy	5.92	3.77	4.40
Fashionable	6.04	3.66	4.86
Expensive	6.08	5.15	5.76
Sweet	5.34	4.79	5.15
Safe	6.17	4.17	5.17
Romantic	5.78	3.87	5.17
Wide assortment	5.76	4.10	5.18
Convenience	5.62	4.55	4.83
European heritage	5.70	4.08	4.81
Unfamiliar	4.25	4.59	4.78
Upscale	5.79	3.52	4.95
Segment size (% of sample)	29	26.4	44.6

Table 6.

Socio-demographic characteristics and overseas experiences of consumer segments

	Segment 1	Segment 2	Segment 3
	Positive-beliefs	Negative-beliefs	Unfamiliar
City (%)			
Shanghai (n=259)	33.6	20.1	46.3
Xi'an (n=282)	24.8	32.3	42.9
Gender (%)			
Male (n=231)	28.1	28.6	43.3
Female (n=310)	29.7	24.8	45.5
Single status (%)			
Yes (n=160)	18.8	35.0	46.3
No (n= 381)	33.3	22.8	43.8
Age (%)			
19-30 (n=174)	23.0	32.8	44.3
31-40 (n=169)	34.9	21.9	43.2
> 40 (n=198)	29.3	24.7	46.0
Financial Situation (%)			
Difficult- Moderate (n=56)	8.9	39.3	51.8
Moderate (n=130)	17.7	35.4	46.9
Moderate-Well off (n=355)	36.3	21.1	42.5
Experience aboard (%)			
Never (n=237)	17.3	39.7	43.0
Duration (%)			
Less than one week (n=69)	37.7	20.3	42.0
One week to one month (n=134)	30.6	17.2	52.2
More than one month (n=101)	48.5	11.9	39.6
Region (%) (multiple choice)			
Asia (outside China) (n= 293)	36.9	17.4	45.7
Europe (n=151)	51.7	11.3	37.1

Table 7.

Weighted regression coefficients and model explanations of PLSR for the three models

Attribute beliefs (X)	General image of European food (Y)		
	Total sample	Shanghai	Xi'an
Delicate appearance	0.096	0.081	0.091
Simple preparation	ns	0.028	ns
Tasty	0.084	0.092	ns
Healthy	0.077	0.089	ns
Fashionable	0.084	0.072	0.120
Expensive	ns	ns	ns
Sweet	-0.099	ns	-0.099
Safe	0.197	0.103	0.191
Romantic	ns	0.055	0.088
Wide assortment	ns	0.063	ns
Convenience	ns	0.031	ns
European heritage	0.066	0.051	0.099
Unfamiliar	-0.138	-0.044	-0.120
Upscale	0.134	0.094	0.132
Model explanation	36%	34%	39%
Cross-validation	34%	27%	34%

Note: ns= no significant; Y= dependent variable of PLSR; X= independent variable of PLSR.

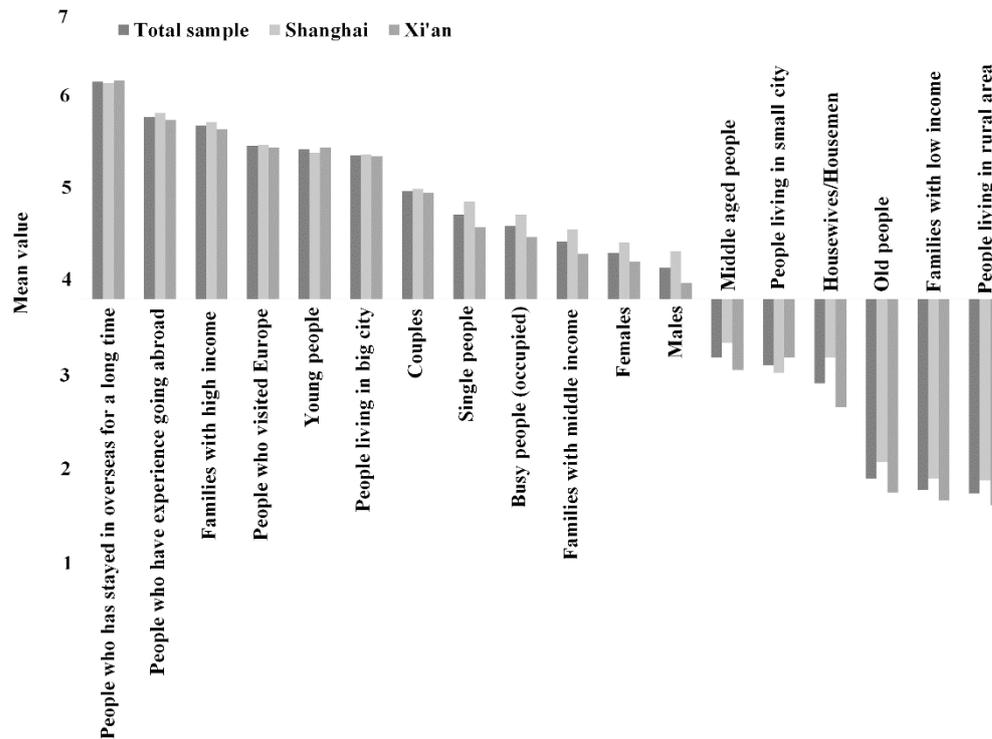


Figure 1. Perceived profiles of typical user (or non-user) of European food in mainland China by participants (mean values, both for the total sample and the subsamples of the two cities)
Note: The X-axis is located at the scale's midpoint in order to recognize the differences between segment profiling variables perceived as belonging to typical users of European food (mean value > 4) and non-users of European food (mean value < 4).

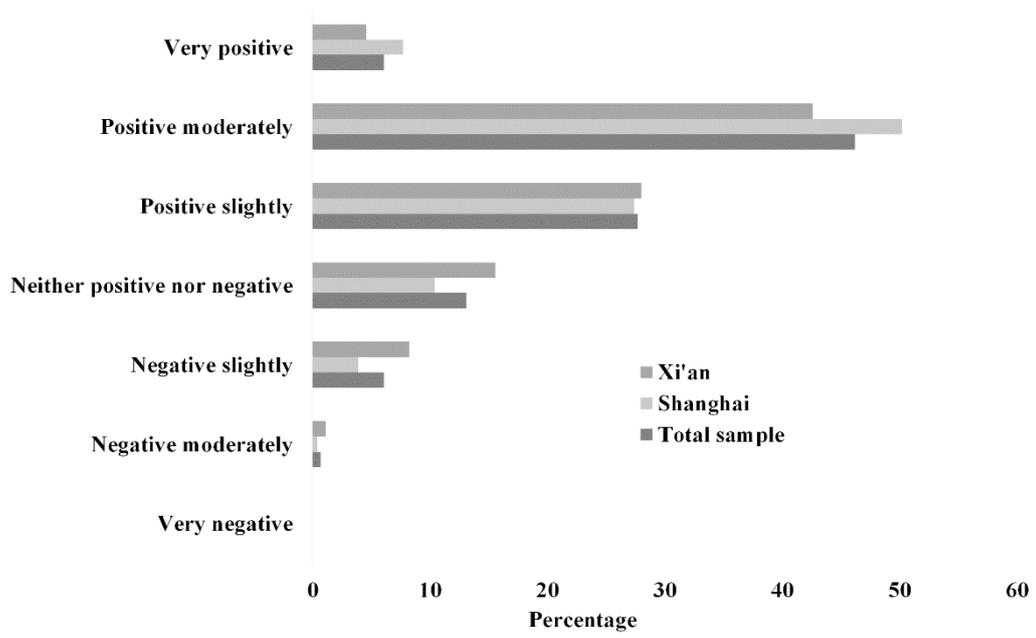


Figure 2. Percentages of the frequencies of participants' scores on general image scales for the total sample and the subsamples of the two cities