1 Cross-national comparison of the Food Disgust Picture Scale between Switzerland and

2 China using confirmatory factor analysis

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Abstract

18 The Food Disgust Picture Scale (FDPS) is a newly developed picture tool that can be used 19 to conduct cross-cultural assessments of food disgust sensitivity. It consists of eight food-related 20 pictures, which participants rate according to the level of disgust they evoke. Due to the undeniable 21 influence of culture on what individuals consider as disgusting, the FDPS's validity across 22 different food cultures is an interesting topic for research. The aim of the present study was to 23 conduct a cross-national comparison of the FDPS in Switzerland and China. In total, 576 24 participants were recruited in China and 538 were recruited in Switzerland. The usability and 25 construct validity of the FDPS were compared between the two countries using confirmatory factor 26 analyses. In the current study we present two main findings. First, dropping one of the meat-related items and thereby reducing the eight-item FDPS to seven items improved the model fit in the 27 28 Chinese (CFI = .98) and Swiss (CFI = .98) samples. Furthermore, it showed that the scale is a valid 29 tool for the assessment of food disgust sensitivity in China. Second, using nested model 30 comparisons, the present study has provided support for the model's invariance across the two 31 countries.

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Keywords: food disgust picture scale, culture, language, meat, Switzerland, China.

35 1 Introduction

Interest in food disgust has been fuelled by the introduction of new products, such as insects, to Western food markets. Disgust has been identified as an important predictor of an individual's willingness to consume these novel foods (Ruby, Rozin, & Chan, 2015). In addition, disgust can lead to a diet with little variation (Egolf, Siegrist, & Hartmann, 2018). It is therefore an important variable to consider in studies that evaluate people's food choices.

41 A widely used tool for the assessment of disgust is the Disgust Scale (DS; Haidt, McCauley, 42 & Rozin, 1994) and its updated and revised version (DS-R, Olatunji et al., 2007). However, only 43 four of the 32 DS items and seven of the 25 DS-R items deal with food. Tackling this issue, the 44 Food Disgust Scale (FDS) was the first food-specific measure of disgust (Hartmann & Siegrist, 45 2018). It consists of 32 text-based items that cover eight domains of food disgust: fish, mould, 46 poor hygiene, animal flesh, decaying fruit, decaying vegetables, living contaminants, and human 47 contamination (Hartmann & Siegrist, 2018). In addition to the 32-item FDS, Hartmann and Siegrist 48 developed an eight-item short version, the FDS short, which contains one item from each of the 49 eight disgust domains.

Later, a picture-based tool to complement the text-based FDS was proposed. The Food Disgust Picture Scale (FDPS; Ammann, Hartmann, & Siegrist, 2018) is a newly developed questionnaire consisting of eight food-related pictures. One of its strengths is the fact that participants rate pictures instead of text. The assessment of pictures is intuitive, because participants rate what they see, and they are not required to read, understand, or imagine a written scenario. This makes it an interesting tool for cross-cultural research, because the disgust elicitor, that is, the picture, does not need to be translated for cross-cultural usage.

57 Cross-cultural research in the domain of food disgust is of particular interest, because what 58 is perceived as acceptable and what is perceived as disgusting strongly depends on a person's 59 cultural background (Martins & Pliner, 2005) and so does food choice (Rozin, 2007). An additional 60 and important factor to consider when looking into food disgust is sex, with females tending to be 61 more disgust sensitive than males (Ammann et al., 2018; Egolf et al., 2018; Hartmann & Siegrist, 62 2018). Furthermore, disgust and food neophobia, that is, a person's aversion to novel or unfamiliar foods, are positively correlated (Al-Shawaf, Lewis, Alley, & Buss, 2015; Hartmann & Siegrist, 63 2018), and beliefs about the disgusting properties of a novel food predict an individual's 64 65 willingness to try it (Martins & Pliner, 2005). Although food disgust sensitivity and neophobia can both result in the avoidance of certain food items, disgust and neophobia are different 66 67 psychological constructs (Hartmann & Siegrist, 2018).

So far, the FDPS has only been tested in Switzerland. The aim of the present study was to test whether the scale can be used in other countries. In the present research, China was chosen due to its distinctly different food culture and language. To test the construct validity of the FDPS and its suitability for use in China, confirmatory factor analysis (CFA) and nested model comparisons were used. Additionally, the present research aimed to identify strategies to improve the scale for use in cross-cultural contexts.

74

75 2 Methods

76 **2.1 Participants**

Participants for the Swiss sample were recruited in 2017 from the German-speaking parts of
Switzerland. Recruitment was carried out by an internet panel provider (Respondi AG, Germany),
and the survey was built and run with the online survey tool Unipark (Management Questback)

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80 GmbH, Germany). Quotas were applied to obtain a representative sample regarding sex 81 (approximately 50% females) and age (approximately 20% for each of the age groups: 18-29, 30-82 39, 40-49, 50-59, and 60 years and older). All participants who did not finish the questionnaire or 83 who needed less than half the median total survey duration to complete it were excluded to ensure 84 that all participants took enough time to answer the questions reliably (n = 19). The final sample 85 consisted of 538 people, 50.4% of whom were females (n = 271), with an age range between 18 86 and 86 years (M = 45.44, SD = 16.15). Most participants reported a medium education level (66%), 87 while fewer reported low (11%) or high (23%) education levels¹.

88 For the Chinese sample, participants were recruited in 2017 through a Chinese panel provider 89 (InterfaceASIA-Holden, Hong Kong), and the survey was conducted with the online survey 90 software Qualtrics (Qualtrics International Inc., United States). Again, quotas were applied to sex 91 (approximately 50% females) and age (approximately 20% for each of the age groups: 20-29, 30-92 39, 40-49, 50-59, and 60-70 years). Age groups differed slightly between the two countries, 93 because different panel providers were used. Still, the average age of the two samples was virtually 94 identical. All participants who did not finish the questionnaire or who needed less than half the 95 median total survey duration to complete it were excluded to ensure that all participants answered 96 the questions reliably (n = 83). The final sample contained 576 participants (50.7% females, n =97 292). Participants' age ranged from 20 to 70 years (M = 44.12, SD = 12.88). Most participants 98 reported a high education level (83%), while fewer reported low (3%) or medium (14%) education 99 levels¹.

¹ High education levels included college or university; medium education levels included vocational and high school; and low education levels included no education, primary, and middle school.

101 2.2 Questionnaires

The FDPS consists of eight food-related pictures (see Table 1) that participants are required to rate on a scale from 0 (*not disgusting at all*) to 100 (*extremely disgusting*). To provide their answer, participants clicked on an interactive slider. The instructions and the verbal anchors of the scale were translated to Chinese. To prevent order effects, the eight pictures were presented to participants in a randomised order, one at a time. As shown in Table 1, FDPS items have been attributed to distinct disgust domains in accordance with the domains used by Hartmann and Siegrist (2018), with the exception of the chocolate and hands items.

As a second assessment tool for participants' food disgust sensitivity, the FDS short was used (Hartmann & Siegrist, 2018). In Switzerland, the German version of the scale was used (Hartmann & Siegrist, 2018). For the Chinese sample, English items were translated to Chinese by a native speaker and back translated by another native to ensure that the original meaning was retained. Participants rated the eight FDS short items on a scale from 1 (*not disgusting at all*) to 6 (*extremely disgusting*). Sample items were "*Food donated from a neighbour whom I barely know*" and "*The texture of some kinds of fish in the mouth*".

To assess participants' food neophobia, the Food Neophobia Scale (FNS, Pliner & Hobden, 117 1992) was used. An existing German version of the FNS (Siegrist, Hartmann, & Keller, 2013) was 118 used for the Swiss sample. For the Chinese sample, English items were translated to Chinese and 119 back translated by another person. In the FNS, participants rated ten items on a scale from -3 (*do* 120 *not agree at all*) to 3 (*totally agree*). Sample items were "*If I do not know what is in a food, I won't* 121 *try it*" and "*I am afraid to eat things I have never had before*". 122 The survey was presented as fixed blocks, starting with demographic questions, continuing 123 with the FDS short and FNS (Swiss participants answered the FNS first), and finishing with the 124 FDPS pictures. It was not possible for participants to go back to previous questions.

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126 **2.3 Data analysis**

127 The suitability of the FDPS for cross-cultural application in China was investigated using 128 CFA and nested model comparisons. First, the hypothesised model for the eight-item FDPS (Ammann et al., 2018) was used, and a CFA using maximum-likelihood estimation was run on the 129 130 Swiss and Chinese samples separately. The model fit was examined via the Chi-square statistic, 131 the root mean square error of approximation (RMSEA, good fit for values < .05), the comparative fit index (CFI, acceptable fit for values > .9), and the normed fit index (NFI; McDonald & Ho, 132 133 2002). Modification indices (MI) and the associated expected parameter change (EPC) values were 134 checked to identify potential difficulties in the model. Second, a nested model comparison was 135 carried out. For this, both groups were added simultaneously (configural model), before the factor 136 loadings were constrained to be equal across both countries (measurement model). The difference in χ^2 (non-significant) and CFI (values ≤ 0.01) between the two models was then considered to 137 138 assess the model's cultural invariance (Cheung & Rensvold, 2002).

Using independent samples t-tests, disgust ratings for the pictures were compared between China and Switzerland. To compare the main effects of sex and country and their interaction effect on food disgust sensitivity and food neophobia, an analysis of variance (ANOVA) was conducted. Pearson's correlations were used to assess the relationships between the scales. All data was analysed with Statistical Package for the Social Sciences (version 25.0, IBM SPSS, Armonk, NY) and Amos (version 25.0, IBM SPSS, Chicago).

146 **3 Results**

147 **3.1 FDPS items**

148 Participants in Switzerland and China made use of most of the response scale range when rating 149 the eight FDPS pictures (Table 1). Mean scores for three of the eight FDPS pictures, that is, the 150 tomato item (Switzerland: M = 57.34, SD = 29.25; China: M = 58.02, SD = 26.19), potato item 151 (Switzerland: M = 79.17, SD = 24.61; China: M = 78.31, SD = 22.33), and maize item (Switzerland: 152 M = 80.01, SD = 23.72; China: M = 82.24, SD = 20.53), did not significantly differ between the 153 Swiss and the Chinese sample (p > .05). The two samples differed most in their average disgust 154 assessment for the avocado item (Switzerland: M = 55.68, SD = 30.13; China: M = 71.19, SD =155 23.44) and the two meat-related items chicken (Switzerland: M = 48.98, SD = 33.92; China: M =156 32.10, SD = 29.20) and hands (Switzerland: M = 43.03, SD = 34.57; China: M = 59.14, SD = 29.20157 27.02). Interestingly, in Switzerland the chicken item received higher disgust scores compared to 158 the hands item (M = 48.98 and M = 43.03), whereas in China the hands item was rated higher than 159 the chicken item (M = 59.14 and M = 32.10). Additionally, the chicken item was the only item in 160 the Chinese sample for which the mean value was closer to the lower end of the scale (0, anchored 161 with "not disgusting at all") than to the upper end of the scale (100, anchored with "extremely 162 disgusting").

Melon^c:

melon

Decaying

Tomatoes ^c:

Wrinkled

tomatoes

Avocado c:

with brown spots

Chocolate ^c:

Chocolate

Chicken^c:

with fat

bloom

Whole

chicken

Hands^c:

handling

painted nails

meat, rings,

Hands

Avocado

			Disquet	Switz	erland	Ch	ina	Difference	t-test for
Picture	Source	Description	domain	М	SD	М	SD		p
	a	Maize ^c : Maize salad with a caterpillar in it	Living contami- nation	80.01	23.72	82.24	20.53	2.23	.095
	b	Potato ^d : Potato with mould	Mould	79.17	24.61	78.31	22.33	0.86	.538

69.05

57.34

55.68

52.00

48.98

43.03

26.20

29.25

30.13

32.22

33.92

34.57

74.71

58.02

62.68

32.10

59.14

71.19 23.44

22.20

26.19

24.76

29.20

27.02

5.66

0.68

15.51

10.68

16.88

16.11

Decaying

Decaying

Decaying

vegetables

Attribution

to distinct

possible

Animal

flesh

domain not

Attribution

domain not

to distinct

possible

vegetables

fruit

164 r the 165

166 Note: Disgust scores were provided on a scale ranging from 1 (not disgusting at all) to 100 (extremely disgusting)

167 ^a: picture produced by the authors, ^b: picture from pixabay.com, ^c: range of observed disgust scores = 0-100, ^d: range

168 of observed disgust scores = 3-100

a

b

169

< .001

.685

< .001

< .001

< .001

< .001

All FDPS items were significantly inter-correlated (see Table 2). Similar correlation patterns emerged in Switzerland and China. The lowest correlation coefficients were found for the chicken item. In the Chinese sample, all inter-item correlations with the chicken item fell below .40. In the Swiss sample, all but one inter-item correlation with the chicken item fell below .40.

174

175 Table 2: Inter-item Pearson's correlations for the eight Food Disgust Picture Scale (FDPS) items in

Switzerland	1	2	3	4	5	6	7	8	
1. Avocado	1								
2. Hands	.39***	1							
3. Potato	.47***	$.27^{***}$	1						
4. Melon	.61***	$.29^{***}$	$.56^{***}$	1					
5. Chocolate	.45***	.34***	.42***	.44***	1				
6. Chicken	$.32^{***}$	$.52^{***}$	$.27^{***}$	$.28^{***}$	$.30^{***}$	1			
7. Tomatoes	$.54^{***}$	$.32^{***}$	$.49^{***}$	$.56^{***}$.39***	$.28^{***}$	1		
8. Maize	.39***	.26***	.45***	.48***	.35***	.32***	.42***	1	
China	1	2	3	4	5	6	7	8	
1. Avocado	1								
2. Hands	$.40^{***}$	1							
3. Potato	$.57^{***}$	$.30^{***}$	1						
4. Melon	$.58^{***}$	$.35^{***}$	$.62^{***}$	1					
5. Chocolate	.51***	.44***	.47***	$.48^{***}$	1				
6. Chicken	.21***	$.38^{***}$	$.09^{*}$	$.15^{***}$.33***	1			
7. Tomatoes	$.55^{***}$	$.42^{***}$	$.55^{***}$	$.56^{***}$.47***	.19***	1		
8. Maize	$.44^{***}$	$.28^{***}$	$.48^{***}$	$.48^{***}$.37***	$.10^{*}$.39***	1	

176 Switzerland (N = 538) and China (N = 576)

177 *p < .05, **p < .01, ***p < .001

179 **3.2** Confirmatory factor analysis and multi-group analyses

180 In the CFA, the most profound difference between the countries was for the chicken item 181 (see Figure 1). In the Chinese sample, the factor loading for the chicken item was the only one that 182 fell below .40, whereas factor loadings for the seven remaining items were virtually identical 183 (differences < .1) between the two samples. The eight-item FDPS model yielded an acceptable model fit for the Chinese sample ($\chi^2(19) = 78.28$, p < .001, CFI = .96, RMSEA = .07, NFI = .95). 184 The model yielded a better model fit for the Swiss sample ($\chi^2(19) = 46.83$, p < .001, CFI = .98, 185 186 RMSEA = .05, NFI = .97). Problems were revealed in the Chinese sample due to the covariance between the chocolate and chicken items (MI = 23.34, EPC = 107.14). As this modification could 187 188 not be justified in a meaningful way, the chicken item was excluded from the model. The chicken 189 item had the smallest factor loading in the Swiss sample as well, adding further support to the 190 notion that this item measures something different than the other items.



Figure 1: Results of the confirmatory factor analysis for the eight-item Food Disgust Picture Scale (FDPS) model including factor loadings for the Swiss sample (left, N = 538) and Chinese sample (right, N = 576)

Dropping the chicken item increased the model fit for the seven-item FDPS for the Chinese sample ($\chi^2(14) = 48.24$, p < .001, CFI = .98, RMSEA = .07, NFI = .97). The changes in model fit were less pronounced for the Swiss sample ($\chi^2(14) = 37.11$, p < .01, CFI = .98, RMSEA = .06, NFI = .97).

As indicated in Table 3, the configural model with both groups tested simultaneously resulted in a good model fit ($\chi^2(28) = 85.35$, p < .001, CFI = .98, RMSEA = .04), indicating configural invariance. The measurement model with constrained factor loadings has been depicted in Figure 2.

203

204 Table 3: Tests for invariance of item measurement across the Swiss and Chinese groups

Model tested	χ^2	df	CFI	Model comparison	$\Delta\chi^2$	Δdf
Model 1	85.35***	28	.979			
(Configural model)						
Model 2	93.87***	34	.978	2 vs. 1	8.52 (ns)	6
(Measurement model,						
restricted factor						
loadings)						

205 *Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation

206 ns = non-significant,
$$*p < .05$$
, $**p < .01$, $***p < .001$

207



- 211 Figure 2: Results of the confirmatory factor analysis for the measurement model of the seven-item Food
- 212 Disgust Picture Scale (FDPS) including factor loadings for Switzerland (values in bold, N = 538) and
- 213 China (values in italics, N = 576), reporting (standardised) and unstandardised estimates

The comparison between the configural and the measurement model yielded a nonsignificant difference (Table 3), both concerning the difference in χ^2 , which was non-significant and the difference in CFI which matched the criterion of ≤ 0.01 (Cheung & Rensvold, 2002). Thus, the measurement model can be regarded as invariant across the two countries.



3.3 Disgust, neophobia, and sex

The reliability of the FDPS was good in the Swiss ($\alpha = .83, 7$ items) and Chinese ($\alpha = .85, 7$ items) samples. There was a significant main effect of sex on food disgust sensitivity, F(1, 1110) 224 = 20.55, p < .001, and a significant main effect of country on food disgust sensitivity, F(1, 1110) 225 = 40.47, p < .001. Also, there was a non-significant interaction effect between sex and country on 226 food disgust sensitivity, F(1, 1110) = 0.22, p = .64. Findings indicate that females provided higher 227 disgust ratings than males, and Chinese participants provided higher disgust ratings than Swiss 228 participants (see Table 4).

229 A similar pattern was found for the text-based food disgust measure. The FDS short had a 230 good reliability in the Swiss ($\alpha = .70, 8$ items) and Chinese ($\alpha = .79, 8$ items) samples. There was 231 a significant main effect of sex on food disgust sensitivity, F(1, 1110) = 25.46, p < .001, and a significant main effect of country on food disgust sensitivity, F(1, 1110) = 55.72, p < .001. 232 233 Furthermore, there was a non-significant interaction effect between sex and country and food 234 disgust sensitivity, F(1, 1110) = 0.79, p = .37. These findings indicated that females provided 235 higher disgust ratings than males, and Chinese participants provided higher disgust ratings than 236 Swiss participants (see Table 4).

For food neophobia, the scale's reliability was good in the Swiss ($\alpha = .82, 10$ items) and the Chinese sample ($\alpha = .72, 10$ items). There was no significant main effect of sex on food neophobia, F(1, 1110) = 0.15, p = .70, but a significant main effect of country on food neophobia, F(1, 1110) = 148.75, p < .001. This indicated that Chinese participants provided higher food neophobia ratings than Swiss participants (see Table 4). Furthermore, there was a significant interaction effect between sex and country on food neophobia, F(1, 1110) = 6.38, p < .05.

243	Finally, the seven-item FDPS was significantly correlated with the FDS short in both the
244	Swiss ($r = .61$, $p < .001$) and Chinese ($r = .48$, $p < .001$) samples, indicating that the two disgust
245	measures assessed the same construct in both countries. The seven-item FDPS was also
246	significantly correlated with the FNS in both the Swiss ($r = .24$, $p < .001$) and Chinese ($r = .16$, p
247	<.001) samples, indicating that individuals with high disgust sensitivity also tended to score highly
248	on food neophobia.

		Switzerland		China			
	Males	Females	total	Males	Females	total	
N	267	271	538	284	292	576	
7-item FDPS	59.50 (20.47)	65.11 (19.75)	62.33 (20.29)	67.16 (17.31)	71.71 (17.24)	69.47 (17.41)	
FDS short	3.23 (0.89)	3.54 (0.83)	3.38 (0.87)	3.66 (0.86)	3.88 (0.91)	3.77 (0.89)	
FNS	3.00 (0.99)	2.85 (0.97)	2.93 (0.98)	3.52 (0.80)	3.63 (0.77)	3.57 (0.78)	

250 Table 4: Mean values and (standard deviations) for food disgust sensitivity and food neophobia in males and females in Switzerland and China

251 *Note:* FDPS = Food Disgust Picture Scale, FDS short = eight-item Food Disgust Scale, FNS = Food Neophobia Scale; answers for the FDPS were

252 provided on a scale from 1 (not disgusting at all) to 100 (extremely disgusting); for the FDS short, they were provided on a scale from 1 (not

253 disgusting at all) to 6 (extremely disgusting); and for food neophobia, answers were provided on a scale from 1 (do not agree at all) to 7 (totally

254 *agree*)

256

4 Discussion and conclusion

257 As an individual's selection of disgust elicitors strongly depends on their cultural 258 background (Angyal, 1941; Rozin, 2007), cross-cultural research on disgust is an exciting 259 endeavour, and only a few studies have examined cultural differences in disgust so far (for 260 instance, Egolf et al., 2019; Olatunji et al., 2009). The FDPS has been suggested for cross-cultural 261 disgust research (Ammann et al., 2018). The present work has tested the applicability of the FDPS 262 in China. First, a CFA on the eight-item FDPS was conducted. Second, based on the CFA results, 263 one item was dropped from the scale. Third, nested model comparisons were conducted and the 264 model's invariance in Switzerland and China was demonstrated.

265 The present work identified two important predictors of food disgust sensitivity, namely sex 266 and culture. In terms of sex, females in the present study reported higher average disgust scores in 267 both countries. This is in accordance with previous research that identified females as more disgust 268 sensitive than males (Egolf et al., 2018; Hartmann & Siegrist, 2018). In terms of culture, it was 269 found that the reported mean values for disgust scores for some of the FDPS pictures were 270 significantly higher in the Chinese sample. It would be ill-advised to conclude from the higher 271 average disgust scores in China that the Chinese population is more disgust sensitive than the 272 Swiss population. As recommended by Ares (2018), direct comparisons of hedonic scores across 273 cultures should be taken with care because these scores are subject to cultural differences in 274 response style. Differences in average disgust scores could also indicate more unfamiliarity with 275 the food items depicted in the FDPS in one country. For instance, though avocados have been 276 grown in China for several decades, they are mainly purchased by large hotels, and the marketing 277 of avocados in China remains difficult (FAO, 2000). It is possible that the avocado item was 278 unfamiliar to the Chinese sample. Similarly, the chicken item received significantly higher disgust

ratings in Switzerland than in China. In China, a small percentage of meat is processed into meat
products, which suggests that consumers prefer fresh meat (Liu, Xing, Zhou, & Zhang, 2017).
Chinese customers may therefore be more used to unprocessed animal flesh leading to the barely
processed chicken being perceived more favourably in China than in Switzerland.

283 In accordance with findings reported by Hartmann and Siegrist (2016), mean food neophobia 284 scores in the Chinese sample were higher than in the Swiss sample. More important than the 285 comparison of mean values in the cross-cultural assessment of scales are correlational patterns. 286 Correlational analyses revealed that, in line with previous research (Al-Shawaf et al., 2015), 287 disgust sensitivity and food neophobia were positively associated in both countries. Similarly, the 288 two disgust scales were highly correlated, indicating that the two disgust measures assessed the 289 same construct in Switzerland and China. Overall, the present research suggested that the seven-290 item FDPS is a valid tool that can be applied to both Swiss and Chinese samples. The confirmatory 291 factor analysis revealed similar factor structures for both samples and configural invariance across 292 the two countries.

293 A limitation of the present study is the fact that participants' familiarity with the food items 294 used in the FDPS has not been assessed. Given that food neophobia and disgust are correlated, 295 future studies should include questions about participants' familiarity with FDPS items to control 296 for these effects. Similarly, the applicability of the scale to other food cultures, such as those of 297 the United States, Middle Eastern Europe, or Africa remains an interesting topic to be answered 298 by future research. The present study was the first step towards establishing a cross-culturally valid 299 measure for the assessment of food disgust sensitivity. Another question that must be addressed 300 henceforth is whether the text-based (FDS; Hartmann & Siegrist, 2018) or picture-based (FDPS; 301 Ammann et al., 2018) tool is the preferred instrument for cross-cultural studies. With the FDS

302 short, participants might form mental images of the written items, which are inevitably subject to 303 participants' imagination. However, text can easily provide more information, for instance, by 304 describing an item's past (such as how it has been produced). The items of the picture-based scale 305 do not require reading comprehension and can, therefore, affect participants more directly and thus 306 provoke stronger emotional responses. However, with images depicting the current state of an 307 item, the item's past is subject to participants' imagination. Thus, the FDS short and the FDPS are 308 significantly positively correlated, but the correlation is not perfect.

In conclusion, the present research demonstrated that the seven-item FDPS is a valid picturebased tool for the assessment of food disgust sensitivity in China. Whether the FDPS can be reliably used in other countries and whether it can facilitate disgust research with children or people with lower literacy levels remain exciting questions for future research. As mentioned elsewhere (Ammann et al., 2018), the short and comprehensive nature of the FDPS make it a promising tool for food disgust research, which is especially useful in applications where pictures are preferred over text.

316

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