

## **Impact of food retailer branding on expectation generation and liking**

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71 Full title: Impact of food retailer branding on expectation generation and liking

72 Short running title: Food retailer branding, expectation and liking

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79

80 Abstract: Branding can influence sensory evaluation, however, the impact of food retailers  
81 from different tiers (premium, everyday and discount) remains undocumented. The aim of  
82 this project was to test whether food retailers generated different quality expectations and  
83 establish whether these impacted on sensory evaluation. Expected liking of 4 chocolate  
84 samples (private brand, premium, everyday and discount food retailer brands) was measured  
85 using a survey (n=199) and hedonic ratings (n=152) were obtained in blind and informed  
86 conditions. Seventy one of the 152 panelists were required to rate their expected liking prior  
87 to the informed hedonic test to assess whether stating expectations could influence  
88 subsequent liking. The premium food retailer and private brand generated similarly high  
89 quality expectations which resulted in significant disconfirmation although a significant  
90 response shift was only observed for the private brand when expectations were measured. In  
91 contrast, the everyday and discount food retailers generated lower expectations which aligned  
92 well with the sensory experience.

93 Practical applications: Although established private brands are still perceived as the gold  
94 standard; premium food retailers can also generate high expectations and there is a clear  
95 hierarchy of expectations between food retailers' tiers. In spite of this, branding had a modest  
96 impact on sensory evaluation compared to actual product quality with partial assimilation  
97 observed only for the private brand. Food retailers should continue to develop their product  
98 quality to carry on improving their brand image. Asking panelists to state their expectations  
99 just prior to the informed hedonic testing could result in self-induced suggestion error. It is  
100 recommended that expectations and informed liking are captured sufficiently far apart when  
101 using the same panelists.

102 Keywords: Food retailer; sensory; branding; disconfirmation; assimilation; suggestion error

103

104 1. Introduction:

105 The impact of external cues and expectations on sensory evaluation has been an important  
106 field of study for over two decades (Deliza and MacFie 1996). It is generally accepted that  
107 extrinsic characteristics and quality cues can impact on quality expectations which in turn  
108 may impact on evaluations of quality (Fernqvist and Ekelund 2014). Several theoretical  
109 frameworks have been developed to model the impact of discrepancy between expectations  
110 and the actual sensorial experience on sensory evaluation (Anderson 1973; Deliza and  
111 MacFie 1996; Piqueras-Fiszman and Spence 2015); these are: (1) assimilation, in which the  
112 consumer resolves the discrepancy between expectation and experience (generally termed  
113 disconfirmation) by shifting the sensory rating (generally termed response shift) in the  
114 direction of their expectation. The majority of empirical evidence described in the literature  
115 appears to fit this model. (2) contrast, in which the discrepancy between expectation and  
116 experience results in a magnification of the difference and response shift in the opposite  
117 direction of their expectation. (3) Generalized negativity, which proposes that any  
118 discrepancy between expectation and experience results in lower hedonic scores regardless of  
119 whether the actual experience surpasses or falls short of expectations. Finally (4) the  
120 assimilation-contrast model supposes that either assimilation or contrast can occur depending  
121 on the magnitude of the disconfirmation. For small differences, assimilation is predicted to  
122 occur whilst big differences are expected to result in contrast.

123 The type of extrinsic cues or information susceptible to generate expectations and impact on  
124 hedonic ratings are numerous but the most commonly investigated span health claims,  
125 country or region of origin, production method, product description and branding (Fernqvist  
126 and Ekelund, 2014; Kim *et al.* 2015; Mueller and Szolnoki 2010; Vranešević and Stancec  
127 2003). Although the underlying mechanisms through which information impacts on hedonic  
128 ratings may be similar; the effect is likely to differ with extrinsic cue type. As such, only

129 studies reporting specifically the effect of branding are considered further in this work. Table  
 130 1 presents a summary of studies reporting the effect of branding (full label or brand name) on  
 131 hedonic rating. Studies which did not report statistical significance for the effect of branding  
 132 on expectations or hedonic ratings were not included. A series of studies has shown brand to  
 133 have a strong impact on hedonic ratings, however, this is not a systematic trend (Table 1).

134 **TABLE 1: SUMMARY OF STUDIES REPORTING THE IMPACT OF BRANDING**  
 135 **(FULL LABEL OR BRAND NAME) ON LIKING. STUDIES WHICH DID NOT REPORT**  
 136 **STATISTICAL SIGNIFICANCE WERE EXCLUDED.**

	References	Sample	Information provided	Number of participants	Expectation measured?	Disconfirmation / Confirmation	Response shift?
Expectations recorded simultaneously or just before to the informed condition	(Torres-Moreno et al., 2012)	Dark chocolates (6)	Brand	109	Just before the informed condition	Disconfirmation observed in 4 samples out of 6	Response shift (assimilation) observed in 1 sample
	(Stolzenbach et al., 2013)	Apple juices (4)	Full label	≈ 45 per sample	Just before the informed condition	Disconfirmation observed in 2 samples out of 4	Response shift (assimilation) observed in 2 samples
	(Varela et al., 2010)	Orange flavoured powdered drinks (10)	Full label	108	Just before the informed condition	Disconfirmation observed in 6 samples out of 10	Response shift (assimilation) observed in 4 samples
	(Lange et al., 2002)	Champagnes (5)	Full label	66	Just before the informed condition	Disconfirmation observed in 5 samples out of 5	Response shift (assimilation) observed in 4 samples
	(Di Monaco et al., 2004)	Pastas (11)	Brand	45	Measured but did not state at which stage	Disconfirmation observed in 7 samples out of 11	Response shift (assimilation) observed in 3 samples
	(Arcia et al., 2012)	Low fat cheeses (6)	Full label	73	1 month before the informed condition	Disconfirmation observed in 4 samples out of 6	Response shift (assimilation) observed in 3 samples
recorded or	(Carrillo, Varela, & Fiszman, 2012)	Biscuits (10)	Full label	30 for blind, 30 for expected and 30 informed	With different groups	/	No response shift observed

(Allison, Gualtieri, & Craig-Petsinger, 2004)	Breakfast cereals (3) and cheese crackers (3)	Brand	100 for blind, 100 for informed	No	/	No response shift observed
(Di Monaco, Cavella, Iaccarino, Mincione, & Masi, 2003)	Tomato purees (6)	Brand	30 for blind, 30 for informed	With different groups	/	Response shift observed in 4 samples
(Vidal, Barreiro, Gomez, Ares, & Gimenez, 2013)	Vanilla milk desserts (6)	Full label	50 for blind and 50 for informed	No	/	Response shift observed in 2 samples

137

138 When expectations were measured, disconfirmation was observed for some or all of the  
139 samples. This suggests that branding may generate expectations which do not align well with  
140 the sensorial experience. A response shift, always in the form of assimilation, was observed  
141 for some of the samples of all the studies in which expectations had been recorded to test for  
142 disconfirmation. In contrast, a response shift was only observed in 2 out of the 4 studies in  
143 which expectations had not been recorded. One explanation may be that the experience  
144 matched the expectation reasonably well, however this is difficult to assess in the absence of  
145 recorded expectations. On the other hand, one may wonder to which extent requiring  
146 panelists to articulate their expectation of quality and commit it to the paper / computer does  
147 not influence their subsequent informed hedonic rating with panelists more likely to rate the  
148 product in line with their stated expectation (assimilation).

149 When introduced, own label store brands (OLSBs) were typically perceived as low quality,  
150 low priced substitutes for manufacturer or national brands (Cotes-Torres *et al.* 2015; Li *et al.*  
151 2015). However, these perceptions are now changing as retailers move to position OLSBs as  
152 viable alternatives, making significant investments in their image and reputation (Rubio *et al.*  
153 2014) as well as product quality development, sometimes matching that of private brands (Di  
154 Monaco *et al.* 2004; Torres-Moreno *et al.* 2012) although not systematically (Olsen *et al.*

155 2011). As a result of this there is now little doubt that OLSBs are growing in popularity and  
156 acceptance. This is confirmed by recent industry and market data (Addy 2013; IGD Retail  
157 Analysis 2017; Kantar 2014; Mintel 2014). This being the case, few studies have explored the  
158 differences that may exist in consumer perceptions of OLSBs across differentially positioned  
159 retailers in the food marketplace, even though the quality image of store brands has been  
160 shown to differ between individual food retailers (Guerrero *et al.* 2000) . Despite this, little is  
161 known about the relationship between consumer expectations of different food retailers  
162 OLSBs product quality and resulting sensory evaluation. In the absence of this understanding,  
163 the objectives of this project were to:

164 - Assess whether differences in food retailers brand image generate different expectations in  
165 terms of product quality. To test this, expected liking for chocolate from 3 major UK food  
166 retailers selected to represent the premium, daily and discount categories were measured  
167 against a private brand benchmark.

168 - Assess whether expectations generated by food retailers' own brands align well with their  
169 product organoleptic quality tested in blind conditions to test for disconfirmation.

170 - Test whether observed disconfirmation induced by food retailers' branding resulted in  
171 response shifts by comparing products hedonic ratings in blind and informed conditions.

172 - Test whether measuring expectations prior to acquiring hedonic ratings in the informed  
173 condition significantly impacted on response shift. To achieve this, participants were  
174 randomly allocated to a condition where expectations were not measured or a condition  
175 where expectations were measured just prior to the informed hedonic testing.

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178 2. Materials and Methods:

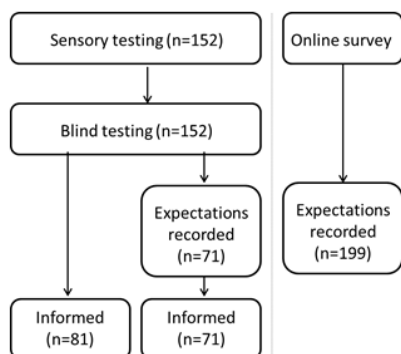
179 2.2. Samples:

180 Milk chocolate was selected as the focus of this study as it is a staple product which is  
181 versatile in its image and cuts across the category range from basic to luxury. It is also a  
182 popular product which does not require preparation. Three major UK food retailers  
183 representing the discount, everyday and premium categories were selected to be compared  
184 and benchmarked against a leading private brand. The chocolate samples were purchased  
185 from the local stores. Where appropriate (blind testing), the branding engraved in the  
186 chocolate was carefully removed using a vegetable peeler so as to present a uniform and  
187 smooth finish.

188 2.3. Studies:

189 There were 3 parts to this project (Figure 1): one in which only consumer expectations were  
190 captured using an online survey and which did not involve any sensory testing (n=199), one  
191 in which both expectations and sensory testing were measured (n=71) and one in which only  
192 the sensory testing was recorded (n=81).

193



194

195 FIG. 1. EXPERIMENTAL PLAN FOR THE SURVEY (N=199) AND SENSORY  
196 TESTING (N=152)



197 2.4. Expectations:

198 The expectation generated by retailer branding was assessed by asking participants to rank in  
199 order of expected preference milk chocolates from the private brand as well as the 3 food  
200 retailers. One hundred and ninety nine participants filled the online survey and 71 completed  
201 the identical paper version during the sensory sessions in which expectations were recorded  
202 (Figure 1). Simultaneously, self-reported frequency of shopping at the main UK retailers  
203 (Aldi, Asda, Co-op, Lidl, Marks and Spencer, Morrison's, Netto, Sainsbury's, Spar, Tesco  
204 and Waitrose) was recorded with options as follows: never, every 3 months or less, every 1 to  
205 3 months, every 2 to 4 weeks and weekly or more. For the purpose of this study, Marks and  
206 Spencer and Waitrose were considered "premium" food retailers; Asda, Co-op, Morrison's,  
207 Sainsbury's, Spar and Tesco were considered as "everyday" and Aldi, Lidle and Netto  
208 "discount". Generic demographic information was also captured (age, gender and whether the  
209 participants were studying or working in the field of food and nutrition).

210 2.5. Sensory testing:

211 Two studies were carried out (Figure 1). In the first study, expected liking of chocolates from  
212 different retailers were recorded just prior to carrying out the informed sensory testing whilst  
213 in the second study, expectations were not recorded. For both studies, the same 4 chocolates  
214 were tested twice, in blind condition (samples presented with a 3 digit code as identifier) and  
215 informed condition (samples identified by the food retailer name or brand, the actual labels  
216 were not presented). For both sets of testing, the 4 chocolates were presented simultaneously  
217 in a randomized order; participants were asked to rank them in order of preference then rate  
218 them for liking on a 9 point hedonic scale (dislike extremely to like extremely). Presenting  
219 samples simultaneously has been shown to yield similar results to monadic testing and found  
220 to be possibly more sensitive (Colyar *et al.* 2009). These findings were later confirmed in a

221 study specifically comparing the hedonic scores of 4 to 5 products presented monadically or  
222 simultaneously (rank-rating) and in which overall liking scores were found not to depend on  
223 presentation protocol (Gutierrez-Salomon *et al.* 2014). Samples were presented at room  
224 temperature with water and cracker for palate cleansing in individual booths lighted with  
225 Northern lights. All the sensory testing occurred in a single session.

## 226 2.6. Participants:

227 Participants for the online survey (n=199) were recruited by word of mouth and using social  
228 media. Participants on the sensory studies (n=152) were recruited by word of mouth, flyers in  
229 and around the University and using a sensory consumer database set up for this purpose.  
230 Participants were randomly allocated to the study in which expectations were measured  
231 (n=71) or not (n=81). The participants consisted of 99 females and 52 males. Sixty of them  
232 (39.5%) studied or worked in the field of food and nutrition (food manufacturing, food  
233 retailing, catering and food services, dietetics, nutrition and health). The participants' average  
234 age was 33.8 years of age (standard deviation 16.9 years, range: 17 – 79 years).

## 235 2.7. Data analysis:

236 A hierarchical cluster analysis (Ward's linkage, Euclidian distance) was performed on  
237 shopping habits to assess whether consumers with different retailer shopping habits had  
238 different expectations in terms of expected preference of milk chocolates from different  
239 retailers. Within each cluster, the food retailers in which participants were deemed to  
240 predominantly shop at were identified as those for which the mode corresponded to "weekly  
241 or more" and "every 2 to 4 weeks". The ranking data was analyzed using a Friedman test  
242 followed post-hoc by an LSRD test. Within each study (with / without recording individual  
243 expectations), the sensory results were analyzed using a repeated measures ANOVA (factor:  
244 chocolate brand) where appropriate a Greenhouse-Geisser correction was applied and post-

245 hoc, a Bonferroni test was carried out. Disconfirmation was estimated by comparing the  
246 expected and blind liking (expected-blind) and response shift was estimated by comparing the  
247 informed and blind hedonic ratings (blind-informed) as described elsewhere (Arcia *et al.*  
248 2012; Di Monaco *et al.* 2004; Stolzenbach *et al.* 2013; Torres-Moreno *et al.* 2012). Two  
249 tailed one sample t-tests were performed to test whether the disconfirmation and response  
250 shifts were significantly different from 0. All significance levels were set at  $\alpha=0.05$  and all  
251 statistical tests were performed using SPSS v23 (IBM, Chicago, USA).

## 252 2.8. Ethics:

253 The study received approval from the faculty research ethics committee. Participants were  
254 informed of their right to withdraw at any point and written informed consent was obtained  
255 prior to starting.

## 256 3. Results:

### 257 3.2. Expectations:

258 The expected liking (ranking) obtained from the online survey (n=199) and sensory study  
259 (n=71) were pooled together as there were no difference in overall ranking between the  
260 electronic and paper versions of the questionnaire. The incomplete answers were removed  
261 which yielded a dataset of 266 valid answers. Table 2 presents the preference ranking order  
262 for the 4 retailers by consumer cluster.

263

264

265

266

267 TABLE 2: RANKING ORDER FOR EXPECTATIONS OF MILK CHOCOLATES FROM  
 268 THE PRIVATE, PREMIUM, EVERYDAY AND DISCOUNT BRANDS, OVERALL AND  
 269 BY CLUSTER BASED ON SELF-REPORTED SHOPPING FREQUENCY. LETTERS AS  
 270 SUPERScript INDICATE SIGNIFICANT DIFFERENT RANKS.\* AND \*\*  
 271 REPRESENT RESPECTIVELY: SHOPS THERE ‘WEEKLY OR MORE’ AND ‘EVERY 2  
 272 TO 4 WEEKS’.

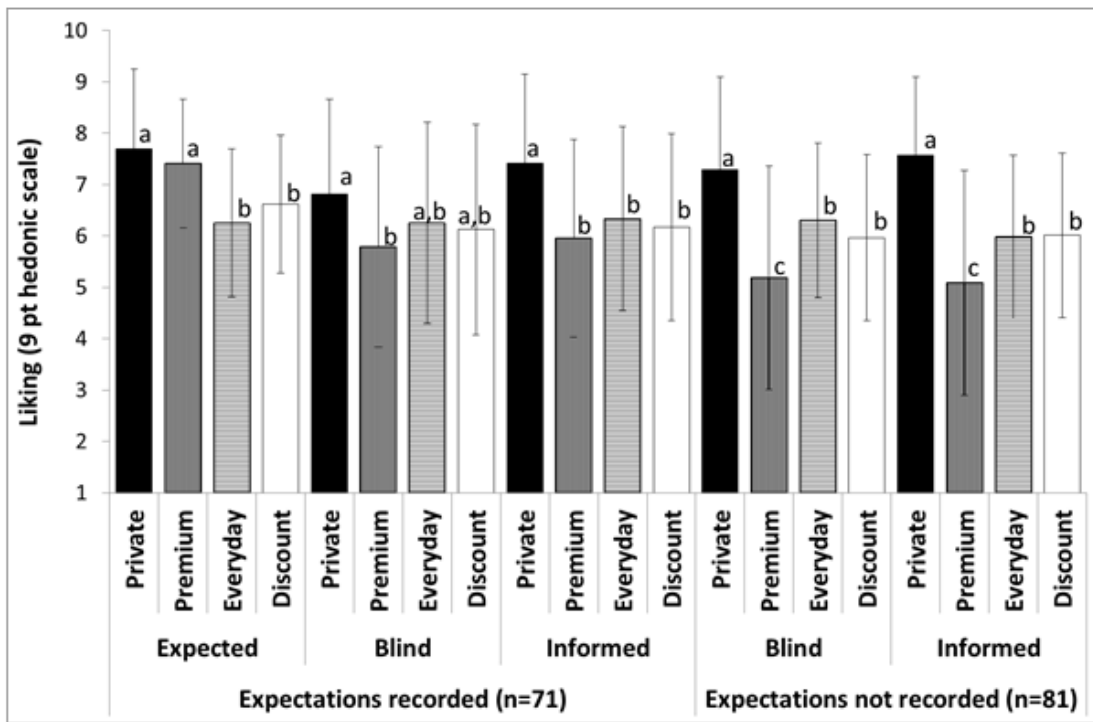
Cl. N.	Consumers	Av. Age (sd)	Gender (F%, M%, U%)	Working in food or nutrition (No%, Yes%, U%)	Rank 1 <sup>st</sup> for expected preference	Rank 2 <sup>nd</sup> for expected preference	Rank 3 <sup>rd</sup> for expected preference	Rank 4 <sup>th</sup> for expected preference
All (n=266)	/	32.1 (15.1)	68.8%, 30.5%, 0.8%	68.4%, 27.8%, 3.8%	Private <sup>a</sup>	Premium <sup>b</sup>	Discount <sup>c</sup>	Everyday <sup>c</sup>
Cl. 1 (n=81)	Predominantly shopping at Sainsbury’s* and Tesco*	33.7 <sup>a</sup> (17.3)	61.7%, 37.0%, 1.2%	74.1%, 21.0%, 4.9%	Private <sup>a</sup>	Premium <sup>b</sup>	Everyday <sup>c</sup>	Discount <sup>c</sup>
Cl. 2 (n=66)	Predominantly shopping at Aldi*	30.9 <sup>a,b</sup> (14.1)	83.3%, 16.7%, 0.0%	59.1%, 37.9%, 3.0%	Private <sup>a</sup>	Premium <sup>b</sup>	Discount <sup>b</sup>	Everyday <sup>c</sup>
Cl. 3 (n=50)	Predominantly shopping at Morrison’s* and Asda*	32.1 <sup>a,b</sup> (15.3)	70.0%, 30.0%, 0.0%	68.0%, 30.0%, 2.0%	Private <sup>a</sup>	Premium <sup>b</sup>	Discount <sup>c</sup>	Everyday <sup>c</sup>
Cl. 4 (n=34)	Predominantly shopping at Aldi**, Sainsbury’s* and Tesco**	39.1 <sup>a</sup> (17.4)	58.8%, 38.2%, 2.9%	61.8%, 29.4%, 8.8%	Private <sup>a</sup>	Premium <sup>b</sup>	Discount <sup>b</sup>	Everyday <sup>c</sup>
Cl. 5 (n=35)	Predominantly shopping at Sainsbury’s*	24.6 <sup>b</sup> (7.8)	65.7%, 34.3%, 0.0%	80.0%, 20.0%, 0.0%	Private <sup>a</sup>	Premium <sup>b</sup>	Everyday <sup>b</sup>	Discount <sup>c</sup>

273

274 Overall and for all 5 clusters, the private label was the chocolate which consumers expected  
 275 to like the best and significantly more than the second best liked sample which was the  
 276 premium food retailer across all clusters. The everyday and discount brands were respectively  
 277 in third and fourth position and were not significantly different from one another, however,  
 278 this pattern was broken for the two clusters (clusters 2 and 4) which reported shopping  
 279 predominantly at a discount retailer (Aldi) and which expected the discount chocolate quality  
 280 not to differ significantly from the premium food retailer's but expected it to perform  
 281 significantly better than the everyday brand chocolate (Table 2). No specific trend was  
 282 observed with respect to age or gender.

283 3.3.Sensory studies:

284 Figure 2 presents the expected and actual liking scores (in blind and informed conditions) for  
 285 study 1 (when expectations were recorded between the blind and informed conditions) and  
 286 study 2 when expectations were not recorded.



287

288 FIG. 2. EXPECTED AND ACTUAL (BLIND AND INFORMED) LIKING SCORES FOR  
 289 CHOCOLATES WHEN EXPECTATIONS WERE RECORDED BETWEEN THE BLIND  
 290 AND INFORMED CONDITIONS AND WHEN EXPECTATIONS WERE NOT  
 291 RECORDED. ERROR BARS REPRESENT +/- 1 STANDARD DEVIATION. LETTERS  
 292 INDICATE SIGNIFICANTLY DIFFERENT RATINGS WITHIN THE CONDITION.

293

294 Expectations:

295 The expected liking ratings of the private and premium food retailer brands were not  
 296 significantly different from one another (p=1.000) but both were expected to be significantly

297 better than the everyday ( $p < 0.001$  for both private and premium) and discount ( $p < 0.001$  and  
298  $p = 0.004$  for private and premium respectively) food retailer brands (Figure 2). Expected  
299 liking for the everyday and discount food retailer brands were not significantly different from  
300 one another ( $p = 0.561$ ).

301 Blind conditions:

302 In both Blind conditions (expectations recorded and expectations not recorded), the private  
303 brand chocolate was significantly better liked ( $p = 0.011$  and  $p < 0.001$  respectively) than the  
304 premium food retailer chocolate which was the least liked. The everyday and discount food  
305 retailer chocolates were not significantly different from another ( $p = 1.000$  and  $p = 0.799$ ) but  
306 were significantly less liked than the premium food retailer chocolate and were significantly  
307 better liked than the discount food retailer chocolate when expectations were not recorded.

308 Informed conditions:

309 The private brand chocolate was significantly better liked than the other 3 food retailers' own  
310 brand chocolates whether expectations were recorded ( $p \leq 0.001$  for all 3: premium, everyday  
311 and discount) or not ( $p < 0.001$  for all 3). The premium food retailer chocolate was  
312 significantly less liked than the other 3 chocolates when expectations were not recorded  
313 ( $p < 0.001$  private brand;  $p = 0.017$  everyday and  $p = 0.035$  discount) but was not found to  
314 significantly differ from the everyday ( $p = 1.000$ ) and discount ( $p = 1.000$ ) chocolates when  
315 expectations were recorded.

316 The disconfirmation and response shifts observed in the 2 studies are presented in Table 3.

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321 TABLE 3: DISCONFIRMATION AND RESPONSE SHIFT FOR THE 4 BRANDS WITH  
 322 AND WITHOUT RECORDING EXPECTATIONS.

	Expectations recorded (n=71)		Expectations NOT recorded (n=81)
	<i>Disconfirmation (E-B)</i>	<i>Response Shift (I-B)</i>	<i>Response Shift (I-B)</i>
<b>Private</b>	0.87 (p=0.001) <i>Sig disconfirmation</i>	0.59 (p=0.009) <i>Sig Response Shift Assimilation</i>	0.28 (p=0.086)
<b>Premium</b>	1.62 (p<0.001) <i>Sig disconfirmation</i>	0.17 (p=0.485)	-0.10 (p=0.675)
<b>Everyday</b>	0.00 (p=1.00) <i>Confirmation</i>	0.08 (p=0.712)	-0.31 (p=0.084)
<b>Discount</b>	0.49 (p=0.067) <i>Confirmation</i>	0.04 (p=0.881)	0.049 (p=0.764)

323

324 A significant disconfirmation (Table 3) was observed for the private and premium brands  
 325 which both generated higher hedonic expectations than the actual experience. However, these  
 326 disconfirmations only translated into a significant response shift (assimilation) for the private  
 327 brand chocolate. In contrast to the private and premium brands, the expectations of the  
 328 everyday and discount food retailer chocolates were well aligned with the actual hedonic  
 329 experience in blind conditions and no significant disconfirmation was observed. When  
 330 expectations were not recorded prior to the informed testing, a slight increase in the informed  
 331 condition hedonic rating compared to the blind testing condition was also noted for the  
 332 private brand chocolate however this did not quite reach statistical significance (p=0.086).

333 4. Discussion

334 A hierarchy in expected quality of food retailers' own brands was observed, in particular the  
 335 premium food retailer product was expected to perform as well or better than the everyday  
 336 and discount food retailer products; this hierarchy of food retailers' own brands is a feature  
 337 which was also noted among Catalan consumers (Guerrero *et al.* 2000). The consumers'  
 338 shopping habits appeared to modulate expectations; in particular, for consumers who  
 339 predominantly shop at discount supermarkets the discount brand performed as well as the  
 340 premium food retailer brand. However, it is not possible to establish causality between

341 expectations and shopping habits from this data set, nor is it possible to speculate on the  
342 relative influence of effective retailer communication strategies and consumer product  
343 knowledge in this study. It is clear from market data and industry analyst reports that  
344 discount supermarkets are undertaking significant effort to position themselves and their  
345 products as viable alternatives to both private and supermarkets own brands (premium and  
346 everyday). Discount supermarket brand adverts and marketing communications over the  
347 previous few years have emphasized a clear value proposition around equivalent product  
348 quality at a significantly lower price (see LIDL and ALDI advertising campaigns). These  
349 have clearly paid off with consumers expecting the same quality (or better) from the discount  
350 food retailer than the everyday food retailer. Although the communication strategies of the  
351 retailers cannot be ignored (IPA 2016; Times100 2016), other factors are in play in shifting  
352 consumer perceptions of discount supermarket brands and their product quality, such as  
353 stories circulated within the media and consumers sharing positives experiences about  
354 discount brands (Beresford and Hirst 2016). The same can be said for the communication  
355 efforts and approaches of the brands, particularly within the premium positioning. By all  
356 means literature exists that explores the role that brand communications and advertising play  
357 in the positioning of luxury food retail brands and products, as well as the interplay between  
358 culture and communications (Tresidder 2010). Therefore to establish the link between the  
359 retailers positioning and communication strategies and the perceptions of OLSBs further  
360 studies ought to identify the ways in which the media and stores communications impacts  
361 upon expectation and sensory experience.

362 The private brand chocolate performed better than the food retailer brand chocolates in blind  
363 conditions. Although, these results cannot be generalized to all product categories and ranges,  
364 it is worth noting that the pervasive notion that own label brands are of lower quality (Cotes-  
365 Torres *et al.* 2015; Li *et al.* 2015) appears to be borne out in this particular instance.



366 Observing significant response shifts for some rather than all of the samples presenting  
367 significant disconfirmation has been reported before (Table 1). The reasons evoked, albeit  
368 briefly revolved around the impact of product image (Lange *et al.* 2002) and brand popularity  
369 (Varela *et al.* 2010). The fact that partial assimilation was observed in the expectation  
370 measured condition for the private brand and not for the premium food retailer brand  
371 indicates that assimilation is not only driven by the initial level of expectation. Indeed, it may  
372 be partially driven by the magnitude of the difference between expectation and experience. In  
373 this case, the disconfirmation was less pronounced for the private brand chocolate than the  
374 premium food retailer chocolate; it is possible that large disconfirmation cannot be  
375 assimilated and although contrast was not observed; our findings may be interpreted in the  
376 context of the assimilation - contrast model (Anderson 1973). However, the response shift (or  
377 absence of) may also be partially driven by other factors acting as moderating variables such  
378 as shopping habits (unfortunately, this could not be tested due to small sample size in each  
379 segment of shoppers) or brand image. In general, expected liking may be a poor proxy to  
380 measure wholesomely brand image; in particular, the role of emotions have been highlighted  
381 before (Li *et al.* 2015) and interactions with brand impact investigated (Schouteten *et al.*  
382 2017). It is conceivable that the combination of branding and evocative sensory experience  
383 generates distinct emotions for different brands of the same category of product. In particular,  
384 incongruency between personal values and brand image has been shown to cancel out the  
385 positive impact of brand familiarity (Paasovaara *et al.* 2012). Having discussed these  
386 elements and although caution must be exercised not to over interpret these preliminary  
387 results, there remains the possibility that the significant response shift observed for the  
388 private brand when expectations were measured may be an artefact of the methodology used  
389 and a direct consequence of asking panelists to rate their expected liking prior to the informed  
390 testing. In contrast, the response shift observed in the condition where expectations were not

391 measured did not reach statistical difference. Participants may be unconsciously inclined to  
392 rate their sensory experience in line with the expected liking rating they have just supplied in  
393 a "self-induced suggestion bias" (a self-induced version of mutual suggestion error  
394 (Meilgaard *et al.* 2006). In the absence of further evidence, a similar approach to that adopted  
395 by Arcia *et al.* (2012) in which a period of several weeks was enforced between the  
396 expectations and informed condition measurements may be advisable.

397 A wider range of product category (staple, luxury) should be considered in order to  
398 generalize the findings as the impact of brands varies with product category, in particular,  
399 opting for food retailers' own labels can be perceived as riskier when private brands are well  
400 established (Li *et al.* 2015) as was the case in this study. Although there is some indication  
401 that recording participants' expected liking prior to the informed hedonic testing may  
402 influence the result of the latter; this would need to be investigated more systematically, in  
403 particular using food items which present different degrees of disconfirmation.

## 404 5. Conclusions

405 Food retailers from different tiers clearly generated different expectations from consumers  
406 with respect to the quality of their products. While private brands are still expected to lead in  
407 terms of product quality this study shows significant differences amongst consumer  
408 expectations of OLSBs. Expectations for the premium food retailer were high and almost  
409 matched those of the established, gold standard private brand whilst the everyday and  
410 discount food retailers lagged behind. Despite this, the impact of branding on liking was only  
411 modest with assimilation observed just for the private brand sample and only when  
412 participants were required to record their expectations prior to the informed testing. Overall,  
413 it is clear that consumer perception of OLSBs products are shifting, especially for food  
414 retailers vying for the more affluent market, and in future could pose significant challenges to

415 private label food brands. What is more, as perceptions of OLSBs continue to align, it is  
416 paramount that food retailers increase their efforts to improve the perceived quality of their  
417 products and relative positioning of their brands. In this respect, alongside a focus on product  
418 development, food retailers need to continue communicating strong messages around product  
419 quality and value; especially if they wish to develop their brand images to match that of  
420 private labels.

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