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Sweet taste of prosocial status signaling: When eating organic foods makes you happy and hopeful

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# Sweet taste of prosocial status signaling: When eating organic foods makes you happy and hopeful

## Abstract

As the current research suggests that there are links between prosocial acts and status signaling (including sustainable consumer choices), we empirically study (with three experiments) whether food consumers go green to be seen. First, we examine how activating a motive for status influences prosocial organic food preferences. Then, we examine how the social visibility of the choice (private vs. public) affects these preferences. We found that when consumers' desire for status was elicited, they preferred organic food products significantly over their nonorganic counterparts; making the choice situation visible created the same effect. Finally, we go beyond consumers' evaluative and behavioral domains that have typically been addressed to investigate whether this (nonconscious) "going green to be seen" effect is also evident at the level of more physiologically-driven food responses. Indeed, status motives and reputational concerns created an improved senso-emotional experience of organic food. Specifically, when consumers were led to believe that they have to share their organic food taste experiences with others, an elevation could be detected not only in the pleasantness ratings but also in how joyful and hopeful they felt after eating a food sample. We claim that the reason for this is that a tendency to favor organic foods can be viewed as a costly signaling trait, leading to flaunting about one's prosocial tendencies. According to these findings, highlighting socially disapproved consumption motives, such as reputation management, may be an effective way to increase the relatively low sales of organic foods and thereby promote sustainable consumer behavior.

**Keywords:** *organic food, prosocial signaling, status, motivational priming, senso-emotional experience, nonconscious behavior*

51

52 **1. Introduction**

53

54 Current food consumption and production are not at a sustainable level (Reisch, Eberle,  
55 & Lorek, 2013): they contribute to climate change and environmental degradation (see  
56 Thøgersen, 2017). In fact, food is one of the three consumption domains, together with  
57 housing and transportation, with the most significant impact on the environment (cf. Tukker,  
58 2015). Transitioning toward organic food consumption would offer a more sustainable  
59 alternative (see Scalco, Noventa, Sartori, & Ceschi, 2017). However, in spite of the positive  
60 general attitudes toward organically produced foods (see Marian, Chrysochou, Krystallis, &  
61 Thøgersen, 2014) their consumption has still remained relatively low. In the world's leading  
62 "organic country" (Denmark), the share of the consumed food accounted for by organic foods  
63 was 7.6% in 2014 (IFOAM, 2016). Although the share of organic food has steadily increased  
64 during the last years, this growth has remained moderate (see Lee & Hwang, 2016). The  
65 critical question, then, is how to increase this share and advance more sustainable food  
66 consumption?

67 The high price of organic food is often suggested to be the major barrier to increasing  
68 their consumption (Aschemann-Witzel & Zielke, 2017; Jensen, Denver, & Zanolli, 2011;  
69 Magnusson, Arvola, Hursti, Aberg, & Sjoden, 2002; Padel & Foster, 2005). In the US, for  
70 example, it has been calculated that organic food is 40–175% more expensive than  
71 conventionally produced food (Magkos, Arvaniti, & Zampelas 2006). Other barriers that have  
72 often been mentioned include availability problems (e.g., Fotopoulos & Krystallis, 2002) and  
73 lack of clarity relating to organic labels, such as skepticism and lack of trust toward them  
74 (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; Nuttavutshitsit & Thøgersen, 2017)  
75 or limited awareness about them (Schleenbecker & Hamm, 2013). Why, then, are organically  
76 produced foods favored? The most common purchase reasons self-reported by consumers  
77 include superior taste, healthiness, food safety, animal welfare and environmental benefits  
78 (e.g., Boizot-Szantai, Hamza, & Soler, 2017; Hemmerling, Hamm, & Spiller, 2015) – the  
79 latter two can be considered to reflect prosocial, altruistic motives, whereas the former three  
80 are more selfish reasons (Kareklas, Carlson, & Muehling, 2014).

81 In the light of recent findings, it is however possible that organic foods are also favored  
82 due to other motives that are nonconscious or socially disapproved. We suggest that  
83 understanding these more socially oriented motives will reveal means to increase their  
84 popularity. The top purchase reasons for environmentally friendly hybrid cars have often been  
85 shown to be reputational (Maynard, 2007). In a similar vein, the major motive to participate in  
86 prosocial acts, such as charity donations (Ariely, Bracha, & Meier, 2009; Van Vugt & Iredale,  
87 2013) or volunteering (Berezkei, Birkas, & Kerekes, 2010), has in many cases been  
88 demonstrated to be status signaling. Perhaps the most illustrative example of this "prosocial  
89 status signaling" (i.e., attaining status through seemingly unselfish acts) is provided by the  
90 study of Griskevicius, Tybur, and Van den Bergh (2010). It revealed that after the  
91 nonconscious status motives of the study participants were activated, they preferred less  
92 luxurious green products over more luxurious nongreen products across a wide range of  
93 product categories (cars, washing machines, table lamps, etc.). Inconsistent with traditional  
94 status-signaling views<sup>1</sup> (see Mandel, Petrova, & Cialdini, 2006; Rucker & Galinsky, 2008;  
95 Wang & Wallendorf, 2006), but in line with the costly signaling theory (e.g., Hardy & Van

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<sup>1</sup> Consumers' tendency to signal about their status through consumption choices is an extensively researched topic. The vast majority of this research suggests that luxury brands, socially visible (expensive) consumer durables and the like "conspicuous products" are the main vehicles for such behaviors. Openly selfish motives, such as self-indulgence, are believed to motivate consumers to send a status signal.

96 Vugt, 2006; Roberts, 1998; Soler, 2013), eliciting the desire for status led consumers to shy  
97 away from luxury and to choose an alternative that benefits everyone.

98 The previous discussion leads to the obvious question that we aim to study: can  
99 prosocial status signaling occur in the mundane consumption context of organic food?  
100 Considering that, in spite of the higher price, organic foods are shopped for as effortlessly and  
101 automatically as their conventionally produced alternatives (Thøgersen, Jørgensen, &  
102 Sandager, 2012), the idea that motivational priming increases preference for them sounds  
103 intriguing.

104 However, this is not necessarily the whole story. Nonconscious exposure to a well-  
105 known brand (cf. universally known organic foods) has been shown to be able to make people  
106 more creative. In a study by Fitzsimons, Chartrand, and Fitzsimons (2008), Apple-primed  
107 study participants performed better in their appointed tasks than IBM-primed participants. In  
108 the food realm, when consumers' nonconscious status motives were activated, they started to  
109 signal their status through the size of food portions; exposure to a power prime got them to  
110 choose bigger food portions (Dubois, Rucker, & Galinsky, 2012).

111 Although there is now a body of research showing that activating a nonconscious goal  
112 can create a variety of reactions and responses, including food and eating-related behaviors  
113 (e.g., Schloesser, 2015; Sengupta & Zhou, 2007; Stöckli, Stämpfli, Messner, & Brunner,  
114 2016), no evidence can be found for its effects on consumers' senso-emotional food  
115 experience (including traditional hedonic liking and more specific taste emotions). This is  
116 surprising particularly for two reasons. First, both sensory and emotional reactions to foods  
117 have generated rich research fields during the last decades (see Köster & Mojet, 2015;  
118 Schouteten, 2017). Second, studies drawing from Sirgy's (1982) self-congruity theory –  
119 conducted in the sensory realm – have implied for some time that (in)congruity between food  
120 brands' symbolic content and consumers' values (cf. motivations) may lead to a distinct  
121 sensory level experience (Allen, Gupta, & Monnier, 2008; Paasovaara, Luomala,  
122 Pohjanheimo, & Sandell, 2012). For this reason, we also aim to study whether prosocial status  
123 signaling – the “going green to be seen” effect – manifests in ways that go beyond well-  
124 established evaluative and behavioral domains. Well-acknowledged, usually positive impact  
125 of organic label on taste perception (e.g., Ellison, Duff, Wang, & White, 2016; Lee, Shimizu,  
126 Kniffin, & Wansink, 2013) makes focusing on this issue extremely interesting.

127 To conclude, we suggest in this paper – and we will empirically reveal through three  
128 experiments for the very first time – that nonconscious activating of desire for status leads  
129 prosocial status signaling through favoring organic foods, which also manifests – intriguingly  
130 – in improvements in their senso-emotional experience (see Thomson, 2007). During this  
131 process, we draw from the newest evolutionary psychology (see Saad, 2016), priming and  
132 food research. This integration of ideas from motivational priming, costly signaling,  
133 (in)congruity accounts and food-elicited effect theories to elucidate how status concerns,  
134 reputational goals and senso-emotional experiences uniquely combine in this mundane  
135 consumption context of organic food represents the major contribution of this study. Next, we  
136 open the conceptual underpinnings leading to three research hypotheses.

137

## 138 **2. Conceptual underpinnings**

139

### 140 *2.1. Organic food as a costly signal*

141

142 Even though status signaling and sustainable consumer choices seem poorly compatible  
143 with each other, recent research has shown that important links exist between them. When the  
144 New York Times reported the top five reasons for buying a hybrid Prius, concern for the  
145 environment was last on the list. Instead, the Prius owners proudly reported that the most

146 important reason for buying one was because “it makes a statement about me” (Maynard,  
147 2007). In a similar vein, the study of Griskevicius et al. (2010) revealed that after the study  
148 participants were primed with status motives, they preferred less luxurious green products  
149 over more luxurious nongreen products across a wide range of categories (e.g., cars, washing  
150 machines, table lamps). Status motives increased the desire for green products, especially  
151 when they were more (but not less) expensive than the nongreen products. Consumers’  
152 willingness to pay for a “green” signal and their status-motivated desire to display “austerity  
153 rather than ostentation” has been identified in other studies, too (Delgado, Harriger, &  
154 Khanna, 2015; Elliot, 2013; Sexton & Sexton, 2014; Van der Wal, Van Horen, & Grinstein,  
155 2016).

156 Why then do consumers want to communicate about their status by favoring sustainable  
157 brands, products and services? It has been suggested (e.g., Maynard, 2007) that a person  
158 acting like this signals to others that he or she is a prosocial individual. Having a prosocial  
159 reputation can be extremely useful: people construed as cooperative and helpful are perceived  
160 as more desirable friends, allies, leaders and romantic partners (see Griskevicius et al., 2010).  
161 Thus, signaling about one’s prosocial behavior may also be a viable strategy for attaining  
162 status. In other words, it offers an opportunity to be respected and honored in the peer group  
163 that, in turn, improves one’s chances of attaining a leading position and the consequent  
164 resources.

165 In the light of these status-enhancing benefits, one might think that people would  
166 actually compete to be seen as being as prosocial as possible. Indeed, this has occurred  
167 throughout different cultures and time periods: this behavior is known as competitive altruism  
168 (e.g., Hardy & Van Vugt, 2006; Roberts, 1998). The existence of competitive altruism in  
169 human life is often explained through the lens of costly signaling theory (Zahavi, 1975). In  
170 the field of consumer research, it has been shown that favoring green (Griskevicius et al.,  
171 2010) and luxury products (Lee, Ha, & Megehee, 2015; Nelissen & Meijers, 2011) can act as  
172 costly signals of status. According to this perspective, an altruistic act communicates both  
173 about a person’s prosociality and his/her ability to incur greater costs without a negative  
174 impact on fitness (cf. wealth) (Bliege Bird & Smith, 2005).

175 Our key theoretical assumption is that favoring organic foods can also act as a costly  
176 signal of status. To qualify as such, however, four criteria must be met (Bliege Bird & Smith,  
177 2005). First, the signal must be observable. Organic foods meet this criterion because they are  
178 equipped with distinct visual labels and are often placed in separate locations in grocery stores  
179 (cf. Van der Wal et al., 2016). The second criterion relates to the fact that the signal must be  
180 costly to display for the signaler. The price premium that consumers pay for organic foods  
181 (Magkos et al., 2006) makes them prototypical examples of costly signals. Furthermore, as  
182 the availability of organic foods is in many cases more limited than that of conventional foods  
183 (Hjelmar, 2011), consumers may have to sacrifice a considerable amount of time and energy  
184 resources to finding them. Organic food production is also strictly regulated (i.e., there are  
185 hardly any cheaper forgeries with better availability). The third criterion is that it must be  
186 associated with some unobservable, yet desirable quality of an individual such as good genes  
187 or physical health or some status-enhancing, socially highly valued trait. According to the  
188 final criterion, a costly signal must ultimately yield a fitness benefit to its signaler. This  
189 benefit derives from the effects of signaling about one’s habits on the behavior of signal  
190 receivers.

191 Concrete support for the claim that the latter criteria are also met in the case of favoring  
192 organic foods has been received from the study of Puska, Kurki, Lähdesmäki, Siltaoja, and  
193 Luomala (2016). This experimental study revealed that a male who signaled about his status  
194 through favoring organic foods – compared to a male who did not – was not only perceived as  
195 more respected and altruistic (the third criterion), but was also more favorably treated.

196 Sending this costly, prosocial signal led the males receiving the signal to donate more money  
197 to him in a charity donation task (the fourth criterion). Hence, also in this everyday, smaller  
198 price tag consumption context, the criteria are seen to be met well. To conclude, because the  
199 current research suggests that there are links between prosocial acts (including environmental  
200 behaviors) and competition for status – and because indications from the status-enhancing  
201 potential of favoring organic foods have been received – we hypothesize as follows:

202

203 **H1.** Activating consumers' status motives will increase the likelihood of preferring organic  
204 foods (compared to nonorganic foods).

205

## 206 2.2. *Role of social visibility*

207

208 According to costly signaling theory, one of the key factors in how status motives  
209 should influence one's decisions is the extent to which the choice situation is socially visible  
210 to others (cf. Kimura et al., 2012). Public purchases can conspicuously signal characteristics  
211 about the buyer to an immediate audience (i.e., to create reputational benefits). In contrast, if  
212 the purchases are made privately without any witnesses, the signaling aspects of the choice  
213 are much less salient (i.e., reputational benefits do not arise). As the purchase of green  
214 products enables a person to signal that s/he is both willing and able to buy a product that  
215 benefits others at a cost to his/her personal resources, activating a motive for status might lead  
216 people to engage in conspicuous conservation (i.e., public proenvironmental act).

217 Indeed, in line with the previous assumption, Griskevicius et al. (2010) showed that  
218 activating status motives led people to choose green products over more luxurious nongreen  
219 products only when they imagine shopping in public (but not in private). When it comes to  
220 social visibility of prosocial acts in general (e.g., conservation, cooperation and charity)  
221 people appear to be particularly sensitive to it (Bateson, Nettle, & Roberts, 2006; Brick,  
222 Sherman, & Kim, 2017). In the public goods game, for instance, it has been shown that  
223 people are prone to give money to preserve the environment only when the giving is public  
224 and can influence one's reputation (Milinski, Semmann, Krambeck, & Marotzke, 2006). To  
225 conclude, because in the public choice situation people have an opportunity to signal about  
226 their prosocial tendencies and considerable resources to others, we hypothesize as follows:

227

228 **H2.** When the choice situation is socially visible, activating the status motives further  
229 increases the likelihood of preferring organic foods (compared to a private situation).

230

## 231 2.3. *Senso-emotional experience of organic foods*

232

233 Although previous studies have not tackled the effects of activation of nonconscious  
234 consumption motive on consumers' senso-emotional food experience – traditional hedonic  
235 liking and experiencing more specific taste emotions – there are no reasons to assume that the  
236 “going green to be seen” effect would be limited to product choices. Exposure to well-known  
237 brands (cf. *organic food*), for instance, can work as a prime cue leading to goal-directed  
238 behavior (Fitzsimons et al., 2008). In the beverage context, it has been shown that after  
239 consuming a can of placebo energy drink, blood pressure increased significantly among the  
240 study participants with high performance motivation, but not among those with low  
241 performance motivation (Irmak, Block, & Fitzsimons, 2005).

242 Why, then, would status motives create an improved sensory level experience? To shed  
243 light on this issue, we turn our focus to consumer value – brand symbolism (in)congruity  
244 explanation model (see Allen et al., 2008). It starts from the premise that products and brands  
245 (cf. *organic food*) possess symbolic contents to which consumers are likely to react on the

246 basis of some value – personal values are closely related to basic human motivations (see  
247 Grunert, Hieke, & Wills, 2014). Self-congruity theory (Sirgy, 1982) suggests – the most  
248 relevant conceptual idea behind the thinking – that consumers prefer and choose products or  
249 brands with symbolic meanings that are congruent with their self-concepts. Incongruity, in  
250 turn, usually leads to an opposite effect. For the present study, the particularly relevant insight  
251 is that (in)congruity between food brands’ symbolic meanings and ones’ values can manifest  
252 itself in the (un)pleasantness of the taste experience (Allen et al., 2008; Pohjanheimo,  
253 Paasovaara, Luomala, & Sandell, 2010).

254 The study of Paasovaara et al. (2012) provides an illustrative example of the  
255 (in)congruity effects: it discovered that after priming a hedonistic value, the sensory  
256 perception of a yogurt brand carrying congruent symbolism was significantly elevated among  
257 consumers appreciating hedonism – this effect did not materialize when they tasted a yogurt  
258 brand signaling incongruent symbolism (i.e., conservatism).

259 In a similar way, we postulate that the (in)congruity effect can shape the senso-  
260 emotional experience of organic food. Specifically, the activation of consumers’ status motive  
261 is assumed to trigger their need to be respected and honored amongst the fellow peers.  
262 Consequently, the improvement of senso-emotional experience requires that organic foods  
263 emit symbolism congruent with this motive. We have contended throughout the manuscript  
264 that favoring them is associated with plenty of status-matching symbolism including socially  
265 highly-valued features of prosociality and affluence. On the other hand, also incongruity (e.g.,  
266 the motivational conflict between self-enhancement and self-transcendence drivers – cf.  
267 Schwartz, 2010) can emerge – causing a less pleasant senso-emotional food experience. In  
268 any case, the (in)congruity theorization supports our rationale.

269 Senso-emotional experience, including more specific taste emotions, refers to a broader  
270 food experience that goes beyond general hedonic liking. The concept was introduced by  
271 Thomson (2007). Although sensory food research has traditionally relied on hedonic  
272 evaluation when producing understanding about consumers’ food product experiences  
273 (Lawless & Heymann, 2010), broader views, going beyond liking, have recently gained more  
274 momentum (Gutjar et al., 2015; Ng, Chay, & Hort, 2013; Schouteten et al., 2017); a major  
275 focus has been in emotional conceptualizations (Jiang, King, & Prinyawiwatkul, 2014; Köster  
276 & Mojet, 2015; Thomson & Crocker, 2015). This focus is not surprising per se because the  
277 interplay between the sensory properties of food and emotions is well-known. A sweet taste,  
278 for instance, can create positive emotions, whereas a bitter taste can evoke negative ones  
279 (Bagozzi, Gopinath, & Nyer, 1999); salty and sour, in turn, may elicit various emotional  
280 associations, such as surprise, sadness and fear (Rousmans, Robin, Dittmar, & Vernet-Maury,  
281 2000).

282 The study of Thomson, Crocker, and Marketo (2010) illustrates well these complex  
283 conceptualizations, analyzing the relationships between the sensory characteristics of  
284 chocolates and emotions during tasting the products. In the study, one dark chocolate brand  
285 characterized by its sweet and creamy flavor yielded emotional associations such as fun, easy-  
286 going and comforting, while another dark chocolate brand with a bitter and coffee-like flavor  
287 was related to confidence, adventurousness and masculinity. In other words, tasting the food  
288 created specific “taste emotions” in the consumers’ minds. We adopt this broader food  
289 experience view (including general liking and more specific taste emotions) for this paper.

290 Finally, it must be stressed that organic label (or other corresponding information) is  
291 known to have an impact on taste evaluation of food (see Bauer, Heinrich, & Schäfer, 2013;  
292 Bernard & Liu, 2017; Ellison et al., 2016). In the case of most food categories or types  
293 (vegetables, fresh foods, wines etc.) this so called “organic halo effect” is shown to be  
294 positive (i.e., higher pleasantness ratings), but some exceptions exist. Organic vice foods,  
295 such as sodas and cookies, are typically experienced as less tasty than their conventionally



296 produced alternatives (Lee et al., 2013; Van Doorn & Verhoef, 2011). When tasting blind,  
 297 however, consumers usually cannot say whether the food sample is produced using organic or  
 298 conventional methods (e.g., Hughner et al., 2007).

299 To conclude, since tasting can create a broader food experience and because it is  
 300 possible that activating a nonconscious goal may affect consumers' sensory food reactions –  
 301 symbolism representing organic food, congruent with prosocial status considerations,  
 302 heightens this possibility – we hypothesize as follows:

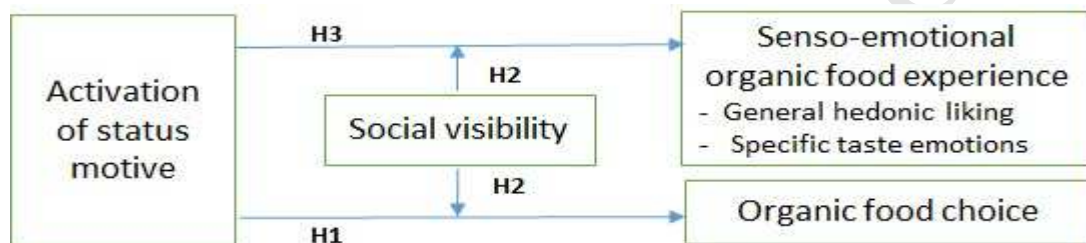
303

304 **H3.** Activating consumers' status motives will improve the senso-emotional experience of  
 305 organic food and making the reputational aspects salient will further boost it.

306

307 In Fig. 1 we summarize the conceptual thinking of the study. Status motive activation not  
 308 only increases preferring organic food, but also improves its senso-emotional experience. A  
 309 socially visible choice and tasting situation boosts both of these prosocial status-signaling  
 310 effects.

311



312

313 **Fig. 1.** Hypothesized effects of status motive activation and social visibility on choice and  
 314 senso-emotional experience of organic food.

315

### 316 3. Experiment 1

317

#### 318 3.1. Materials and method

319

320 The first study examined how activating a motive for status influences choices between  
 321 proenvironmental organic food products and their nonorganic counterparts. As the current  
 322 research suggests that there may be important links between displays of caring, environmental  
 323 behaviors, and competition for status, we predicted that activating status motives should  
 324 increase the likelihood of choosing more organic food products.

325 *Participants, design and procedure:* Eighty student consumers ( $M_{age}=26.1$  years,  
 326  $SD=3.83$ , 50% of men, the most common (55%) household yearly income level 0-19999€),  
 327 were approached with a questionnaire under the pretext of a memory recall task in a  
 328 university library in a large Finnish city. First, they were escorted to a peaceful place where  
 329 they completed the questionnaire (anonymously) at their own pace (approx. 15-20 minutes).  
 330 The study had two between-subjects motive conditions: status ( $n=40$ ) and control ( $n=40$ ), in  
 331 which the participants were selected randomly. No incentives for participation were given.  
 332 The study participants were debriefed at the end of the experiment.

333

334 Status motives were elicited by showing participants a list of 20 words (on the first  
 335 page), of which they should remember as many as possible; they were told that they would be  
 336 asked about the words again at the end of the study (cf. Maio, Pakizeh, Cheung, & Rees,  
 337 2009). Among these nouns were embedded 12 words related to high status (luxury product,  
 338 designer watch, first class, etc.). The participants had three minutes to look at the words (data  
 339 collectors ensured that they looked at the words during the time allotted). The control  
 condition was otherwise identical, but this time the noun list included only words without any

340 kind of link to high status (backpack, table lamp, fraction, etc.). The participants in this  
341 condition also had to look at the words for three minutes. The status words had nothing to do  
342 with prosocial behavioral strategies, such as cooperation, helping, self-sacrifice or  
343 proenvironmental behavior.

344 *Products:* After the motive activation, and before the participants were allowed to make  
345 the product choices (approx. 6cm x 9cm images in color were used), they answered filler  
346 questions relating to use of technology. In this way, it was ensured that the participants would  
347 not understand the actual purpose of the study (post-study interviews did not reveal any  
348 suspiciousness). After these questions, the participants had to make dichotomous choices  
349 concerning six food product pairs: two product pairs contained an organic option (bacon &  
350 coffee). These product types were chosen for the study because they are both currently  
351 available in an organic and a conventional form – manufactured by the same company – and  
352 their package solutions were very similar. Counterbalanced product pairs (i.e., order of the  
353 two products varied) were always presented on their own pages. Price information was not  
354 shown at any time.

355 Regarding the other product pairs, in two pairs participants had to make a choice  
356 between a more luxurious product and its conventional version (cold cuts and blue cheese).  
357 This juxtaposition was included in the study for two reasons. First, we wanted to investigate  
358 whether activating a motive for status – in line with traditional status-signaling perspectives –  
359 would lead consumers to favor more luxurious and indulgent products over conventional ones  
360 (cf. Rucker & Galinsky, 2008). Second, we wanted to have some initial confirmation that  
361 status activation would not simply lead people to favor options that are more *special*,  
362 *fashionable* or *unique* (cf. organic, luxurious vs. conventional) regardless of the actual  
363 product characteristics. Two more pairs (milk and cooking cream) were added as filler  
364 products to reduce the possibility that the participants would figure out that organic food  
365 products are the key interest of the study.

366 *Pre-tests:* We predicted that status motives should lead people to want to be seen as  
367 more prosocial, and thus it was important that both organic products were perceived as being  
368 associated with more prosociality than their nonorganic counterparts. We thus pretested the  
369 perceptions of both products with a separate group of 176 participants (88 men, 88 women).  
370 These participants saw either the organic products or the nonorganic products. For both of the  
371 products, participants indicated on a 1–9 scale the extent to which the person who favors this  
372 product was (a) nice, (b) caring, and (c) altruistic. As expected, compared to the nonorganic  
373 products, both organic products were associated with being nicer (Ms 5.94, SD=1.06 vs. 5.21,  
374 SD=1.02,  $p<.001$ ,  $d=.7$ ), more caring (Ms 6.40, SD=1.14 vs. 4.41, SD=.95,  $p<.001$ ,  $d=1.9$ ),  
375 and more altruistic (Ms 5.73, SD=1.11 vs. 5.05, SD=.99  $p<.01$ ,  $d=.65$ ). Thus, as expected,  
376 people who seemed to favor these organic products, relative to their nonorganic counterparts,  
377 were perceived as more prosocial.

378 It was also important to verify that the status word list (relative to the control word list)  
379 is capable to elicit desire for status. Thus another manipulation check was conducted with a  
380 separate group of 30 participants (15 men, 15 women). We used “status consumption  
381 statements” developed and validated by Eastman, Goldman, and Flynn (1999). Specifically,  
382 after looking at the words and answering the filler questions, participants were asked to  
383 indicate on a scale 1–7 the extent they: 1) “are interested in new foods with status”, 2) “would  
384 buy a food product just because it has status”, and 3) “would pay more for a food product if it  
385 had status”. As expected, the statements (one composite measure was formed,  $\alpha=.747$ )  
386 received higher scores (Ms 3.56, SD=.783 vs. 2.73 SD=.768,  $p<.01$ ,  $d=1.1$ ) among  
387 participants who memorized the list of status words ( $n=15$ ) – participants’ sex did not interact  
388 with motive primes ( $p>.3$ ) meaning that the word lists had similar effect to men and women.

389 Hence, our status prime (compared to control prime) seems to be capable of activating  
390 consumers' desire for status.

391

### 392 *3.2. Results and discussion*

393

394 The key prediction in the experiment was that activating status motives should increase  
395 the likelihood of choosing the organic product (relative) to the same organic product in the  
396 control condition. Indeed, as predicted, whereas 50% of the chosen products were organic in  
397 the control condition, the corresponding share was 70% in the status condition. As interaction  
398 was not detected,  $p > .2$ , the two target measures were summed to yield a choice index (range:  
399 0–2 – cf. Wheeler & Berger, 2007). A one-way analysis of variance (ANOVA) showed that  
400 this difference is significant  $F(1,78) = 5.725$ ,  $p = .019$ ,  $d = .53^2$ . Thus, eliciting status motives  
401 may be an effective strategy for promoting sustainable consumption behavior also in the  
402 everyday food choice context.

403 However, when signaling about status, it is not meaningless whether the signaling  
404 occurs – be it through seemingly prosocial acts or material possessions – in a private or public  
405 setting; in a situation visible to others, the reputational aspects are much more salient (see  
406 Wang & Wallendorf, 2006). Thus, we investigate next how the social visibility of the choice  
407 affects organic food preferences.

408

## 409 **4. Experiment 2**

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### 411 *4.1. Materials and method*

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413 The first study showed that activating status motives increased the tendency to choose a  
414 prosocial organic product over a nonorganic product. The second study examined how status  
415 motives influenced preferences for organic versus nonorganic products when people  
416 considered shopping in a public setting (at a grocery store with a friend). As people appear to  
417 be sensitive to the social visibility of prosocial acts, we predicted that when people considered  
418 shopping in public (unlike in experiment 1), status motives should further increase  
419 preferences for organic foods over nonorganic foods.

420 *Participants, design and procedure:* Eighty-eight student consumers ( $M_{age} = 28.3$  years,  
421  $SD = 4.92$ , 50% of men, the most common (57%) household yearly income level 0-19999€)  
422 were approached with a questionnaire in a university library in a large Finnish city (approx.  
423 two months after the first experiment with a different set of participants). The study design  
424 was identical to that of experiment 1 (status condition  $n = 44$ , control condition  $n = 44$ ).  
425 However, this time the choice situation was described to be visible to others. Whereas in  
426 experiment 1, the participants were just asked to choose between the alternatives (i.e., private  
427 setting), now they were first instructed to imagine that they are in a store shopping for  
428 ingredients for a special dinner with a friend. The post-study interviews did not reveal any  
429 suspiciousness this time either. No personal information was collected and afterwards the  
430 participants were debriefed.

431

### 432 *4.2. Results and discussion*

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<sup>2</sup> In terms of the more luxurious vs. conventional product pair (one choice index was formed,  $p > .4$ ), no differences in choices were detected  $F(1,78) = .000$ ,  $p = 1$ ,  $d = 0$ . Thus, status motives did not lead to favor more indulgent food options. This result brings support for ruling out the possibility that organic options are preferred more (after status activation) as they are just “unconventional”. It must be highlighted that none of the demographic (sex, age), socio-economic (income level) or situational (activity level and mood) factors asked or the participants' product type or brand attitudes had any effect on DVs (all p-values  $> .2$ ).

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We first pooled the data sets from experiments 1 and 2 together (recall that the measured variables were exactly the same). Then, to examine if status motives had a different effect on preferences depending on whether study participants were choosing in public or private, a two-way ANOVA with motive (status vs. control) and audience (private vs. public) was performed. As the effects of motive and audience did not vary between the products,  $p > .3$ , the two target measures were again summed to yield a choice index (range: 0–2). This analysis revealed an indication of interaction  $F(1,164) = 3.503$ ,  $p = .063$ ,  $\eta^2 = .021$ <sup>3</sup>. Specific simple effects were examined next.

As can be seen from Fig. 2, the results are – at first glance – somewhat unexpected (only average percentages are reported). Contrary to the prediction, activating status motives did not further increase preference for organic foods when choosing in public: public status vs. public control  $F(1,164) = .077$ ,  $p = .782$ ,  $d = .05$ ; public status vs. private status  $F(1,164) = .236$ ,  $p = .628$ ,  $d = .1$ . On the other hand, analyses revealed an interesting detail, namely, the social visibility of the choice in itself (i.e., public control vs. private control) significantly increased preference for organic foods  $F(1,164) = 4.668$ ,  $p = .033$ ,  $d = .47$ . Thus, in the organic food context, the social visibility of the choice seems to act in the same way as priming status motives does. This claim is supported by the fact that in both of the public conditions (status and control) and in the private status condition (i.e., in conditions with reputational concerns), organic foods are equally preferred and this preference was distinctly stronger than in the private control condition (i.e., the only condition devoid of any manipulations).



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**Fig. 2.** Preference for organic foods as a function of primed motive and social visibility of choice.

To conclude, also in this everyday food choice context consumers seem to go green to be seen. The results are in line with the costly signaling theory: the participants preferred prosocial organic foods only when their status motives were activated (experiment 1) or when their choices were salient to others (experiment 2) and thus influenced one's reputation.

Hence, we go next beyond product choices and investigate whether the prosocial status-signaling effect also manifests itself in the senso-emotional experience of organic foods. This idea is not conflict with the key tenets of the costly signaling view. Just like preferring a product in a choice, preferring a product in a taste test – especially in a situation visible to others – offers an opportunity to (nonconscious) status signaling.

## 5. Experiment 3

### 5.1. Materials and method

<sup>3</sup> A corresponding two-way ANOVA was performed in relation to more luxurious vs. conventional product choices (again, a choice index was formed,  $p > .5$ ); this analysis did not reveal an interaction  $F(1,164) = .012$ ,  $p = .912$ ,  $\eta^2 = .0$ . None of the asked control variables (see footnote 2) had any effect on DVs this time either (all  $p$ -values  $> .2$ ).

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Experiment 1 showed that activating status motives increased the tendency to choose an organic over a nonorganic food product. Experiment 2 uncovered that making the choice situation visible to others created the same effect. Experiment 3 sought an answer to the question: does the “going green to be seen” effect also manifest itself in the senso-emotional experience of organic food? In line with two previous predictions, we expected that activating consumers’ status motives will improve the senso-emotional experience of organic food and that making the reputational aspects salient will further boost it.

*Participants and procedure:* Two hundred and fifty-seven student consumers were recruited for the study in the university campus area of a large Finnish city ( $M_{\text{age}}=25.0$  years,  $SD=3.52$ , 45% of men, the most common (58%) household yearly income level 0-19999€). Individuals moving around the campus buildings were approached and asked to participate in a memory recall study which also involves tasting a food samples. As a cover story, we told our study participants that we are interested in how cognitively taxing efforts influence the ability to remember things. To amplify the cover story, we led them to believe that in their group the cognitively taxing efforts related to taking a stand on various statements about their consumption habits, while in the other groups they related to mathematical reasoning and word puzzle-solving.

The consenting individuals were then escorted to a peaceful classroom furnished with a few three-walled cubicles to ensure distraction-free circumstances for tasting the food samples and completing the questionnaire (approx. 20-25 minutes). Social visibility was manipulated by leading the study participants at the public condition ( $n=137$ ) to believe that they were supposed to share their food responses with the researchers at the end of the experiment (this instruction was given both orally and via text in the questionnaire). At the private condition ( $n=120$ ), no such instructions were voiced. According to the post-study interviews, participants did not see the connection between the memorization task and taste test. They received a canteen voucher worth six euros for their time and effort. No personal information was collected and afterwards the participants were thanked and debriefed.

*Design and measurement of senso-emotional experience of food:* The study had a 2 (audience: public vs. private) x 2 (motive: status vs. control) x 2 (informed production method: organic vs. conventional) between-subjects design. Study participants were randomly assigned to each of the experimental conditions. Status motives were primed in the same way as in experiments 1 and 2. Likewise, the questionnaire remained essentially unchanged; only the section concerning the measurement of DV was revised. The senso-emotional experience of food was gauged, first by the conventional hedonic liking item (taste un/pleasantness, scale 1–7) and second by measuring the emotions the taste elicited (cf. Spinelli, Masi, Dinnella, Zoboli, & Monteleone, 2014). These included both positive-negative and private-collective emotions (scale 1–7): *joy*, *hopefulness*, *irritation* and *disappointment* (cf. Luomala, Sirieix, & Tahir, 2009; Onwezen, 2015). Finally, participants were requested to indicate the intensity of their purchase intention toward the foods they tasted (scale 1–7).

*Food samples:* Each study participant’s senso-emotional experience was recorded for two food product samples: carrot (in grated form) and cheese (as chunks). The samples were prepared following the same procedures on the day before the experiment and stored in the refrigerator (5 °C) in sealable containers. Before the actual taste tests, the samples were kept at room temperature for one to two hours. Carrot was selected as the focal food sample as it is a simple agricultural product devoid of complex extra symbolism. One group of participants was informed (in the questionnaire) that they would taste grated carrots that were conventionally produced and another that they were grown organically.

In turn, cheese was chosen as the second taste sample because it represents a more refined product category with a wider range of market offerings and is thus imbued with

522 symbolic meanings (cf. Vieitez, Gámbaro, Callejas, Miraballes, & Irigaray, 2014). This time,  
 523 one group of participants were led to believe that they would taste “ordinary” cheese, while  
 524 another group was told that the cheese was “luxurious” (cf. Jacquot, Berthaud, Sghair, Diep,  
 525 & Brand, 2013). In effect, the inclusion of cheese measurements served to 1) investigate  
 526 whether status activation improves the senso-emotional experience of a “luxurious food” (cf.  
 527 cold cuts and blue cheeses in experiment 1) and 2) mask the fact that the study is interested in  
 528 the effect of the “organic” cue. In reality, the food samples were always prepared using the  
 529 same food product material.

530

## 531 5.2. Results and discussion

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533 To examine if the status motive activation and visibility of the food responses had a  
 534 different effect on the senso-emotional experience of a food sample that the participants were  
 535 told was conventionally vs. organically produced (DVs: taste, joy, hopefulness,  
 536 disappointment, irritability and purchase intention), a three-way ANOVA with the motive  
 537 (status vs. control), informed production method (organic vs. conventional) and audience  
 538 (private vs. public) as IVs was performed. This analysis revealed an indication of interaction  
 539 in relation to *taste*  $F(1,249) = 3.542, p = .061, \eta^2 = .014$ , *joy*  $F(1,249) = 3.594, p = .059, \eta^2 = .014$ ,  
 540 *hopefulness*  $F(1,249) = 10.943, p = .001, \eta^2 = .042$  and *purchase intention*  $F(1,249) = 2.689,$   
 541  $p = .102, \eta^2 = .011$  but not in relation to *disappointment*  $F(1,249) = .004, p = .951, \eta^2 = .0$  and  
 542 *irritability*  $F(1,249) = .337, p = .562, \eta^2 = .001^4$ . Specific simple effects were examined next.

543 As can be seen from Fig. 3, activating status motives (vs. control motives) did not  
 544 improve the senso-emotional experience of a food sample believed to be organic in the private  
 545 condition. Yet, the food sample served as organic received slightly higher *taste* ( $M_{\text{status prime}} = 5.7,$   
 546  $SD = .915; M_{\text{control prime}} = 5.51, SD = .820; F(1,249) = .647, p = .422, d = .22$ ), *joy* ( $M_{\text{status prime}} = 4.33,$   
 547  $SD = 1.348; M_{\text{control prime}} = 4.3, SD = 1.368; F(1,249) = .008, p = .929, d = .02$ ), *hopefulness*  
 548 ( $M_{\text{status prime}} = 4.23, SD = 1.371; M_{\text{control prime}} = 4.1, SD = 1.768; F(1,249) = .115, p = .734, d = .08$ )  
 549 and *purchase intention* ( $M_{\text{status prime}} = 4.37, SD = 1.520; M_{\text{control prime}} = 3.97, SD = 1.351;$   
 550  $F(1,249) = 1.092, p = .297, d = .28$ ) ratings.

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553

554 **Fig. 3.** Senso-emotional experience of food samples believed to be organic in different  
 555 experimental conditions.

556 Regarding our follow-up prediction (i.e., that making the tasting situation visible to  
 557 others should improve the senso-emotional experience), the analyses revealed that this was  
 558 indeed the case (see Fig. 3). When status motives were activated (vs. control motives) in the

<sup>4</sup> A corresponding three-way ANOVA was performed in relation to cheese sample experiences (motive, cheese information and audience); this analysis did not reveal indications of interaction in terms of any DV (p-values ranging from .411 to .821). Hence, specific simple effects were not examined.

559 public condition, the food sample served as organic not only *tasted* (marginal effect) more  
560 pleasant ( $M_{\text{status prime}} = 5.51$ ,  $SD = .742$ ;  $M_{\text{control prime}} = 5.09$ ,  $SD = 1.138$ ;  $F(1,249) = 3.376$ ,  
561  $p = .067$ ,  $d = .44$ ), but also created more intense emotions of *joy* ( $M_{\text{status prime}} = 4.34$ ,  $SD = 1.571$ ;  
562  $M_{\text{control prime}} = 3.53$ ,  $SD = 1.522$ ;  $F(1,249) = 5.432$ ,  $p = .021$ ,  $d = .52$ ) and *hopefulness* ( $M_{\text{status prime}} = 3.66$ ,  
563  $SD = 1.878$ ;  $M_{\text{control prime}} = 2.38$ ,  $SD = 1.415$ ;  $F(1,249) = 12.138$ ,  $p = .001$ ,  $d = .77$ ) and even  
564 stronger *purchase intention* ( $M_{\text{status prime}} = 4.06$ ,  $SD = 1.626$ ;  $M_{\text{control prime}} = 3.18$ ,  $SD = 1.732$ ;  
565  $F(1,249) = 6.084$ ,  $p = .014$ ,  $d = .52$ ). Thus, it seems that the “going green to be seen” effect is not  
566 limited to product choices, but extends to the more physiologically-driven senso-emotional  
567 experience of food<sup>5</sup>. In other words, the effects of motivational priming can go beyond the  
568 well-established evaluative and behavioral domains. As for the other simple effects, no  
569 significant differences were found.

570 In summary, three novel insights emerge from this research. First, activating  
571 consumers’ status motives increases the likelihood of prosocial status signaling through  
572 organic food choices. Second, making the reputational aspects of choice salient (i.e., visible to  
573 others) also heightens its probability. Third, activating consumers’ status motives and  
574 simultaneously making the reputational aspects of tasting salient (i.e., visible to others)  
575 creates an improved senso-emotional experience of organic foods.

576

## 577 6. Conclusion and implications

578

579 From the outset, one might think that everyday food choices and sending reputational  
580 messages are poorly compatible with each another. By applying insights from the costly  
581 signaling theory, we have proven otherwise in this paper (through three experiments). When  
582 consumers’ status motives were activated, they made significantly more prosocial organic  
583 food choices in this smaller price tag context (experiment 1); it was not even necessary to  
584 activate status motives, as just making the reputational aspects salient sufficed to create the  
585 same effect (experiment 2). These findings strongly indicate that food consumers go green for  
586 reputational reasons. However, this was not the whole story. We demonstrated that in addition  
587 to product choices, the “going green to be seen” effect can manifest itself in the senso-  
588 emotional experience of organic food (experiment 3). Next, the theoretical and practical  
589 implications of the findings together with study limitations and future research suggestions  
590 are discussed in more detail.

591

### 592 6.1. Theoretical implications

593

594 The fact that prosocial status signaling, the “going green to be seen” effect, can manifest  
595 itself at the level of senso-emotional food responses represents novel understanding – when  
596 reputation was at stake, even the taste experience became more pleasant. Why did signaling  
597 make study participants happy and hopeful? One might think that the “better taste” of  
598 organically produced food made them feel happy. Another, quite intuitive explanation might  
599 be that favoring a prosocial alternative puts one in a good mood because one is behaving in a  
600 way that is beneficial for other people, society and even the planet. However, differences  
601 emerged when tasting the same product, which was always presumably organically produced.  
602 Activating the status motives can explain these findings to a certain extent. However,  
603 participants experienced positive emotions only in the public condition. We suggest that  
604 happiness is experienced (nonconsciously) when one has the opportunity to attain status and  
605 to climb up in the peer group hierarchy – higher pleasantness ratings open up the possibility to  
606 signal about one’s prosocial tendencies.

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<sup>5</sup> As in the case of previous experiments, none of the asked demographic, socio-economic or situational factors (see footnote 2) nor product type attitudes had any effect on DVs (all p-values >.2).

607 Another relevant question is: why did social visibility have a slightly different effect in  
608 the product choice and tasting experiments? This might be due to the fact that the  
609 manipulation method was not the same. Whereas the witness of the signaling was a fictional  
610 friend (familiar) in experiment 2, this was an actual person (a previously unfamiliar  
611 researcher) in experiment 3. Studies conducted in the social facilitation domain often suggests  
612 that the impact of audience on actors' behavior can be expected to be stronger – due to a sense of  
613 uncertainty – if the actor is unfamiliar with the audience (see Guerin, 2010). Furthermore, it is  
614 known that the witness's status can moderate the audience effect; people tend to become more  
615 cautious in front of an audience with a higher status (cf. Anderson, Hildreth, & Howland,  
616 2015). Accordingly, we can speculate that perhaps social pressure created by the presence of a  
617 presumably smart academician – above the student in the hierarchy – is more intense than the  
618 corresponding pressure created by a friend. This claim receives support from the fact that in  
619 the public condition (experiment 3) the ratings are generally lower than in the private  
620 condition.

621 Conceptually the intensity could mean – as the participants knew they are being judged  
622 – that evaluation apprehension (see Baumeister, Ainsworth, & Vohs, 2016; Feinberg &  
623 Aiello, 2006) has been present in experiment 3. In practice, when the signaling had a witness  
624 (researcher), but when the desire for status had not been activated (control prime), participants  
625 became cautious in their judgments (due to the potential for immediate reputation harms).  
626 When the desire for status was activated in the presence of a witness, this concern vanished  
627 (as a result of nonconscious status activation, the motivational focus possibly shifted from  
628 avoiding reputation harms to attaining potential reputation benefits). This mediating  
629 mechanism of social facilitation (see Uziel, 2007) could explain the substantial differences in  
630 evaluations between the motive primes in the public setting (see Fig. 3). In any case, the  
631 results speak the high importance of controlling the meanings attached to the method when  
632 manipulating social visibility. Yet, prosocial status signaling occurring through favoring  
633 organic foods – possibly because of the expected reputation benefits – seems to have the  
634 power to make consumers happy.

635 Consumer research has recently produced startling findings concerning the effects of  
636 motivational priming on consumers' behavior and choices (e.g., Janiszewski & Wyer, 2014;  
637 Madzharov, Block, & Morrin, 2015; Nenkov & Scott, 2014; Park & John, 2014). In the food  
638 realm, exposing study participants to a power prime leads them to signal their status through  
639 choice of food portion size (Dubois et al., 2012). In a similar way, a promotion prime led to  
640 an increase in food portion size behavior, whereas a prevention prime caused a decrease in the  
641 same behavior (Webster, Chakrabarty, & Kinard, 2016). In the case of healthiness, a  
642 gratefulness prime (vs. pride) created more unhealthy choices (Schloesser, 2015), while  
643 putting health-related cues (vs. pleasure-related ones) at vending machines promoted healthier  
644 choices (Stöckli et al., 2016). Some consumers may even become promotion-oriented when  
645 their motivations are primed by a hedonically tempting food and this type of priming then  
646 guides their subsequent hedonic food consumption (Sengupta & Zhou, 2007). However, no  
647 evidence can be found of any effects of motivational priming on consumers' senso-emotional  
648 food experience. Hence, our findings from consumers' nonconscious food responses – that go  
649 beyond the well-established evaluative and behavioral domains – provide an extension to the  
650 literature of motivational priming.

651 Although some indications of the reputational value of organic foods have been found  
652 (Carfagna et al., 2014; Cervellon & Shammas, 2013; Costa, Zepeda, & Sirieix, 2014;  
653 Kniazeva & Venkatesh, 2007), the findings have been more or less ambiguous; these  
654 mundanely consumed products are said to be shopped for as effortlessly as their  
655 conventionally produced alternatives (Thøgersen et al., 2012). Furthermore, many consumers  
656 do not appreciate organic production methods (Bellows, Alcaraz, & Hallman, 2010).



657 According to our findings, favoring organic foods indeed possesses status-enhancing  
658 potential. In other words, they can be used as one's status-signaling efforts. This raises the  
659 question of how big actually is the consumer segment that favors organic foods for other  
660 motives – such as reputation management – than the often self-reported and socially approved  
661 reasons of healthiness, tastiness and ethical concerns. Future studies are encouraged to take  
662 both socially approved and disapproved motives into account at the same time when studying  
663 organic food consumption.

664 Our findings bring support for the idea that favoring organic foods can act as a costly  
665 signal of status. Lee et al. (2015) and Nelissen and Meijers (2011) have shown that favoring  
666 luxury products can act as such a signal; in the latter study, wearing a high-status brand-name  
667 shirt (vs. an unbranded shirt) even created several real-life behavior benefits for this person.  
668 Griskevicius et al. (2010) suggested that favoring green consumer durables can act as a costly  
669 signal of status. In this paper we have shown, contrary to previous studies, that a behavior  
670 strategy as mundane as food consumption can act as a costly signal of status. A lone example  
671 suggesting the same is the study of Puska et al. (2016), in which a male who seemed to favor  
672 organic foods was not only perceived more positively, but was also favorably treated. In the  
673 study of Puska et al. (2016), as in the one of Griskevicius et al. (2010), however, the prosocial  
674 signaling effects were investigated in relation to simple behavior intentions and perceptual  
675 experiences (cf. more physiologically-driven food responses in the present study).

676 Finally, it is known that a considerable part of consumers' behavior is nonconscious  
677 (see Lee et al., 2013). Some evolutionary-minded researchers have suggested (e.g.,  
678 Griskevicius & Kenrick, 2013; Saad, 2016) that all our behaviors are guided by nonconscious,  
679 fundamental motives (e.g., desire for status). In the food realm, acknowledging the  
680 importance of nonconscious forces is especially relevant since it has been estimated that the  
681 majority of food-related decisions occur at a nonconscious, automatic level (Cohen & Babey,  
682 2012). According to Köster (2009), intuitive reasoning and nonconscious decision making  
683 play a more important role in food-related behavior than in probably any other area of  
684 consumption. Also in the present study, the “going green to be seen” effect occurred as a  
685 result of subtle nonconscious priming. The message of this discussion is that food-related  
686 consumer research should primarily utilize methods – in addition to *priming* – that are capable  
687 of tapping into consumers' nonconscious processes and responses (e.g., *nudging* – see  
688 Wilson, Buckley, Buckley, & Bogomolova, 2016).

## 689 690 *6.2. Study limitations and future research suggestions*

691  
692 As always, some study limitations can be identified. At the same time, they offer fruitful  
693 opportunities for further research.

694 This study concentrated on how prosocial organic foods are preferred and how they are  
695 experienced in terms of senso-emotional properties after (status) motivational priming efforts.  
696 Due to the long procedure, only one prosocial food sample was included in the study: a  
697 simple agricultural product, carrot in grated form. Thus, it is not possible to take a stand on  
698 whether consumers' food responses would have been the same if the served sample had been  
699 more processed (e.g., organic dairy product), classifiable as a vice food (see Van Doorn &  
700 Verhoef, 2011) or inherently rich in terms of food symbolism (e.g., organic meat and  
701 *masculinity* – see Schösler, de Boer, Boersema, & Aiking, 2015 – or organic chocolate and  
702 *emotionality* – see Thomson et al., 2010). In other words, the generalizability of the findings  
703 beyond the organic vegetable context is left for future research to (dis)confirm.

704 Experiments 1 and 2 did not involve actual purchases, but hypothetical product choices  
705 (i.e., behavioral intentions). Thus, these findings must be validated with different methods  
706 (preferably involving actual purchases), in a more natural setting (preferably in a real retail

707 environment) and in other product categories than bacon and coffee, so that a more accurate  
708 picture can be formed of to what extent food consumers go green to be seen. Also products  
709 with some other prosocial claims, such as local (Denver & Jensen, 2014; Memery, Angell,  
710 Megicks, & Lindgreen, 2015) or fair trade (Kimura et al., 2012) foods, must be investigated.

711 In experiment 3, after the motivational priming efforts, the (assumed) organic food  
712 sample was experienced rather similarly regardless of the dimension in question (taste,  
713 emotions of joy and hopefulness and purchase intention). This raises the question of whether  
714 some kind of “halo effect” that we are not aware of is influencing food responses (cf. Chernev  
715 & Blair, 2015). In this case, exposure to status competition triggers a need to stand out in  
716 consumers, which in turn is realized in the form of higher general ratings toward the organic  
717 food sample. So that a more precise answer to this question can be given also other (more  
718 objective) methods should be applied.

719 Neuroscience provides a potential method to exclude possible “halo effects” and  
720 generally to examine food-related nonconscious behavior. The neuromarketing approach (e.g.,  
721 Plassmann, Ramsøy, & Milosavljevic, 2012) can provide – by avoiding the bias always  
722 present in self-reported evaluations – an additional or completely alternative way to do  
723 consumer research; in some cases (more subjective) conventional consumer research and  
724 (objective) neuromarketing data can even disagree (see Hammou, Galib, & Melloul, 2013).

725 As for the theoretical underpinnings of the present study, it must be noted that the  
726 foundations of the costly signaling view partly originate from the evolutionary theory of  
727 sexual selection. Even though it has been successfully applied in business research, it may be  
728 imperfect for understanding how ethical consumption behaviors such as favoring organic food  
729 serve reputation management and coalition formation within social networks devoid of  
730 mating concerns. The notions of reciprocal altruism (Kurzban, Burton-Chellew, & West,  
731 2015) and indirect reciprocity (Wu, Balliet, & Van Lange, 2016) provide alternative  
732 promising conceptualizations for tackling these phenomena.

733 The fact cannot be ignored that the experiments were conducted in a nationally large  
734 city and in a university campus area. That is to say, the study participants were highly  
735 educated (or enrolled in university) and the vast majority of them were from urban areas. The  
736 study of Puska et al. (2016) revealed that even within the same, highly developed and  
737 homogenous Western country, there may be great variations in terms of how prosocial status  
738 signaling or organic foods are viewed. Thus, before generalizing the findings, the experiments  
739 should be replicated in a socio-culturally distinct area (e.g., rural areas) and among other  
740 participants than university graduates (e.g., blue-collar workers).

741 The fact that no direct information was collected on participants’ associations regarding  
742 organic food or their own purchase frequencies can be viewed as a limitation of the present  
743 study. Another limitation is that, unlike in the case of organic food, we did not pretest to what  
744 extent the more indulgent food products (cold cuts and blue cheese in experiment 1 & 2) or  
745 cheese sample served as “luxurious” (in experiment 3) were actually perceived to represent  
746 more indulgent or luxurious food options. On the other hand, effects relating to these foods  
747 were not the primary interest of the research.

748 Possible moderators of the “going green to be seen” effect cannot be ignored. In terms  
749 of traditional demographic (sex, age) or socio-economic factors (income level), no moderation  
750 was detected, but are there others? One potential moderator is consumers’ personal values  
751 (see Caracciolo et al., 2016). Driving a Prius, for example, confers greater benefit in  
752 communities with strong environmental values than in other communities (Sexton & Sexton,  
753 2014). Thus, an interesting question is whether consumers who lean toward self-enhancement  
754 values (power, achievement) are more inclined to prefer organic foods when exposed to status  
755 competition than those who lean toward conservation (security, conformity, tradition) or self-  
756 transcendence (benevolence, universalism) values. In addition to personal values, other

757 psychological characteristics should not be overlooked. Narcissism, for instance, can qualify  
758 as a possible moderator. According to Naderi and Strutton (2015), narcissists are inclined to  
759 buy more expensive green products due to the prestigious and luxurious image they confer to  
760 others.

761

### 762 6.3. Practical implications

763

764 After the motivational priming efforts, the participants not only had a greater preference  
765 for organic food products (experiments 1 & 2), but also a stronger intention to purchase them  
766 (experiment 3). To illustrate the managerial potential of this finding, it is well known that, due  
767 to their high price, consumers do not purchase organic foods more often even though the self-  
768 reported attitudes toward them are usually rather positive (see Marian et al., 2014). Thus, in  
769 spite of the high price, making the reputational aspects more salient in their sales  
770 environments (e.g., clues capable of activating consumers' status motives and more visible  
771 selling locations) might be an effective way to boost their sale (cf. Rana & Paul, 2017). More  
772 generally, eliciting reputational concerns may be an effective strategy for promoting  
773 sustainable consumption behavior (cf. Noppers, Keizer, Bolderdijk, & Steg, 2014).

774

775 The previous research has shown that arousal of (especially) positive emotions is a  
776 significant determinant of prosocial (including proenvironmental) behaviors (e.g., Bissing-  
777 Olson et al., 2013; Russell & Friedrich, 2015). In the present study, after tasting the assumed  
778 organic food sample, status-primed participants experienced more intense (positive) emotions  
779 of joy and hopefulness, while tasting had no effect on (negative) emotions of irritation and  
780 disappointment. Thus, eliciting positive emotions may have some efficacy when encouraging  
781 consumers to make more organic food choices. Creative marketers can implement this in  
782 practice by creating package solutions for organic food products capable of activating  
783 especially positive emotions – utilization of emojis and emoticons might be one way (see  
784 Vidal, Ares, & Jaeger, 2016).

784

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789

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