



Vaasan yliopisto
UNIVERSITY OF VAASA

OSUVA Open
Science

This is a self-archived – parallel published version of this article in the publication archive of the University of Vaasa. It might differ from the original.

Does Organic Food Consumption Signal Prosociality? : An Application of Schwartz's Value Theory

Author: Puska, Petteri
Title: Does Organic Food Consumption Signal Prosociality? : An Application of Schwartz's Value Theory
Year: 2019
Version: final draft
Copyright Taylor & Francis (Routledge)

Please cite the original version:

Puska, P. (2019). Does Organic Food Consumption Signal Prosociality? : An Application of Schwartz's Value Theory. *Journal of Food Products Marketing* (25)2, 207-231. <https://doi.org/10.1080/10454446.2018.1522286>

Does organic food consumption signal prosociality?: An application of Schwartz's value theory

Abstract

Current research suggests that sustainable consumption choices (including favoring organic foods) can act as signals of prosociality. However, who actually perceives such acts as indicators of prosocial, altruistic tendencies is still unclear. Through an online survey (n=168) and by using personal value priorities (Schwartz's theory of values) as IVs, the present study sheds light on this issue. First, the results suggest that organic food consumption can confer the valuable signal of prosociality – and some other socially valued traits were also associated with this everyday behavior strategy. Then, the study shows that the interpretation of the signal is dependent on respondents' positioning in Schwartz's value circumplex. Intriguingly, in addition to those people who endorse self-transcendence values, people with conservative value priorities also view the presumed organic consumer as prosocial. These impressions are further mediated by more specific organic food attitudes, thereby forming a value-attitude-impression relationship. The implications are outlined.

Keywords: organic food, prosociality, status, consumer impression, Schwartz's value theory

1. Introduction

Consumers' attitude toward organically produced foods is usually positive (Marian et al., 2014, p. 52). This is the result of the favorable beliefs encompassing them – promoting the attainment of both prosocial and more ego-centric goals – such as environmental friendliness, animal welfare, superior taste, healthiness or food safety (Hemmerling, Hamm, & Spiller, 2015; Hughner et al., 2007; Schleenbecker & Hamm, 2013). However, mainly due to high prices, their consumption has remained relatively low, even throughout the Western world (less than 10% at best – Kaad-Hansen, 2017). As organic food represents a more sustainable production method (Scalco et al., 2017, p. 236), a critical question then concerns how to increase this share in spite of the substantial price premium. It is suggested here that a better understanding of the social signal value of favoring organic food (cf. Puska et al., 2018) can be helpful with regard to this issue.

Value orientations are useful for understanding and even explaining prosocial behavior (Schwartz, 2010). It has been suggested that a tendency to act in an environmentally friendly way is rooted in personal value priorities (Thøgersen, Zhou, & Huang, 2016). Several studies applying Schwartz's (1992, 1994, 2012) theory of values have concluded that those people who endorse so-called self-transcendence values (universalism in particular) are most willing to make organic food choices (e.g., Thøgersen, 2011; Zepeda & Deal, 2009), whereas those who cherish self-enhancement values are most unlikely to favor any sustainable options (see Karp, 1996; Steg, 2015). Due to their abstract nature, however, values do not necessarily affect behaviors directly but indirectly through mediating concepts, such as more specific beliefs and attitudes (see Dreezens et al., 2005). A value-attitude-behavior relationship has been identified in several sustainability contexts (Thøgersen et al., 2016, p. 215).

One central feature of values is that they also guide our evaluations of fellow people (Schwartz, 1992, 2006). It is well known that people make inferences about others based on their consumption choices; such inferences are often related to the person's social status (e.g., level of prestige or wealth) or to his/her social identity, preferences and worldview (Belk, Bahn, & Mayer, 1982; Han, Nunes, & Dreze, 2010; Holt, 1998; Nelissen & Meijers, 2011). An intriguing recent finding is that organic food consumption can elucidate impressions relating to prosocial status. The experimental study of Puska et al. (2016) revealed not only that a person who seemed to be "pro-organic" (vs. a nearly identical control person) was viewed as more altruistic and respected – hallmarks of prosociality appreciated by all cultures, cf. Soler, 2012 – but also that the person was more favorably treated (reception of larger charity donations).

Although many other studies have also dealt with the relationship between prosociality and organic food consumption (see e.g., Eskine, 2013; Mazar & Zhong, 2010; Van Doorn, & Verhoef, 2011), the fact who actually makes these inferences related to socially valued traits about organic consumers is still unclear. That is, is the person who favors organic in food choices valued by all consumers or just by some? By using Schwartz's classic main value classes as IVs, the current paper aims to shed light on this issue.

Filling in this gap is important, as the results of Puska et al. (2016) indicate that favoring organic food (a relatively inexpensive, everyday act) might be a useful behavior strategy: people with a prosocial reputation are generally perceived as more desirable leaders, allies, friends and even romantic partners (Griskevicius, Tybur, & Van den Bergh, 2010, p. 393; Kafashan et al., 2014). At first glance, one might think that those who are the most pro-organic (i.e., people with self-transcendence and a universalistic worldview) are also those who perceive the organic consumer – a member of their in-group, cf. Reynolds, Turner, & Haslam, 2000 – most favorably. However, due to this valuable social signaling function, the case may be more complicated; in addition to "true believers", "opportunist" or "rival" assessments are also

possible (cf. Puska et al., 2016). Furthermore, organic food also emits a symbolism congruent with Schwartz's other main value classes (see Aertsens et al., 2009), which, in turn, may have an elevating impact on observers' organic consumer judgments (cf. Allen, Gupta, & Monnier, 2008).

To conclude, through an online survey (n=168), the current work investigates who truly values the organic consumer. By doing so, it contributes to the understanding of organic food consumption and consumer research in the following ways. First, the results suggest that organic food consumption can be perceived as a signal of prosocial, altruistic tendencies. The main finding of the research is that the prosociality impression is dependent on respondents' positioning in Schwartz's value circumplex, which, in turn, is mediated by more specific organic food attitudes, thereby forming a value-attitude-impression relationship. The synthesis of the ideas from Schwartz's value theory (1992, 1994, 2006, 2010, 2012), the value-attitude-behavior-hierarchies, (in)congruity accounts and research on prosocial status signaling in this highly mundane consumption context (Thøgersen, Jørgensen, & Sandager, 2012) represents the other novelty value of the study.

2. Conceptual underpinnings

2.1 Schwartz's value theory and prosociality

The current study draws on Schwartz's thoroughly validated theory of values (1992, 1994, 2012), which is grounded on three universal requirements of human existence: 1) the biological needs of individuals, 2) coordinated social interaction between individuals, and 3) survival and welfare needs of groups. Accordingly, human values represent individual responses to the abovementioned three desires in the form of conscious goals. The theory

suggests that values and their structure represent the universal organization of human motivations. However, individuals and groups differ substantially in the relative importance they attribute to values. In other words, individuals and groups have different “value priorities”.

The theory identifies ten motivationally distinct types of values and specifies the dynamic relations among them. Some values conflict with one another (e.g., benevolence and power), whereas others are compatible (e.g., conformity and security). The "structure" of values refers to these relations of conflict and congruence among values. Two orthogonal dimensions summarize the integrated structure (Schwartz, 2012): the vertical dimension of ‘self enhancement–self-transcendence’ contrasts the values of power and achievement (which emphasize the pursuit of self-interest) with the values of universalism and benevolence (which involve concern for the welfare and interests of others). The horizontal dimension of ‘openness to change–conservation’, in turn, contrasts the values of self-direction and stimulation (which emphasize independent thought and readiness for new experiences) with the values of security, conformity, and tradition (which involve self-restriction, order, and resistance to change). Hedonism conceptually shares elements of both ‘openness-to-change’ and ‘self-enhancement’. The ten values and their relationships are presented in Figure 1.

Insert Figure 1 about here

Schwartz (2010) has further suggested that some value orientations are more prone to prosocial behavior, and according to his theory (Schwartz, 1992, 2006), they also influence evaluations of someone’s prosociality. It is important to stress that in social sciences, the dominant assumption seems to be that the main motivational factor for prosocial behavior is altruism (see Carlo et al., 2016) – the current paper assumes the same. Fundamentally altruism refers to acts aiming to help others without any interest in gaining benefits. In its purest form it

is “selflessness” – a highly valued trait in all societies. However, because altruistic acts (especially when conducted repeatedly) are costly – they simply deplete the givers resources that are needed for other everyday actions, cf. Barrett, Dunbar, and Lycett, 2002 – there is an ongoing debate by different disciplines, whether humans are actually capable of true altruism (see Clavien & Klein, 2010).

Evolutionary-driven perspectives tend to suggest that there is no such thing as pure altruism towards non-kin members who cannot reciprocate (e.g., Van Vugt & Van Lange, 2006). Similarly, irrespective of evolutionary accounts, a rational economic perspective (Dawes & Thaler, 1988) considers the existence of altruism to be puzzling (i.e., a theoretical anomaly). That is, although the general discussion of prosociality often views altruism as a behavior performed for the utility of others, in many cases, it has also self-interest origins. However, people’s judgments of others – whether someone is perceived as prosocial or not – are caused by a feeling or sense, and observers cannot actually certain whether a person acts from self-interest or not.

Schwartz (2010) argues that the most frequently relevant values in the case of prosociality are universalism, benevolence, conformity, security, and power, although each of the ten values might be relevant to prosocial behavior under some conditions. Whereas the first three values tend to emphasize prosociality, the latter two might work against it. Benevolence values concern the welfare of the in-group, and universalism values the welfare of all. Thus, universalists are considered the most prosocial in their orientation. Self-transcendence values provide an internalized motivational base to voluntarily promote the welfare of others, whereas conformity values promote prosocial behavior in order to avoid negative outcomes for the self. Thus, in the latter case, prosociality is a type of a trade-off.

Contrary to these positive links between values and prosociality, security and power values typically oppose prosocial behavior. They are motivated by the maintenance of a stable,

protective environment. For example, security values focus on self-interest goals instead of macro-level goals. These values deter actions on others' behalf that might entail risk to the status quo. However, self-entertainment values (power and achievement) emphasize self-interest and competitive advantage. If one pursues social approval, it may elicit prosocial behavior in situations where it will bring public acclaim (Schwartz, 2010).

Thus, what the theory suggests is that there are multiple mechanisms that can trigger prosocial behavior – and some values are more connected to these acts than others – but how they eventually affect our evaluations of others prosociality, might be more complex and more context specific than is currently known. The social signal value of favoring prosocial products may also play a role in how an organic consumer is viewed (e.g., truly altruistic vs. seemingly altruistic).

Finally, the abstract nature of values must also be taken into account (Thøgersen & Ölander, 2006). That is, although values are useful for understanding prosocial behaviors, they do not necessarily guide actions directly – evaluations of organic consumers in this case – but indirectly through mediating concepts such as more specific attitudes (cf. Dreezens et al., 2005). Value-attitude-behavior relationships – flowing explicitly in this order and not the other way around – have been identified in many sustainable consumption contexts (e.g., Best & Mayerl, 2013). In the organic food realm, it is understood that the higher likelihood of consumers with a universalistic value base favoring these products is often mediated by a more specific attitude intention (Thøgersen et al., 2016). In a similar vein, it is expected here that the values do not affect the evaluations directly but indirectly through an organic food attitude that is the result of the interplay between a person's value priorities and beliefs regarding organic food that are prioritized over other values and beliefs (cf. Krystallis et al., 2012).

2.2 Organic food consumption – signals of prosociality or signaling prosociality?

Organic food consumption is often associated with a value-driven lifestyle. It is assumed that organic food consumption results from an ideology that is connected to a particular value system that affects personality measures, attitudes and consumption behavior (Schifferstein & Ophuis, 1998, p. 119). Organic food consumers' value priorities are then perceived to be highly similar to those of proenvironmental behavior in general (e.g., Honkanen, Verplanken, & Olsen 2006; Thøgersen & Ölander, 2006). Universalism has been found to be the dominant value guiding consumers' purchase of organic food (Thøgersen et al., 2016). In fact, when universalism is controlled, no other value is both positively and significantly related to organic food purchases (Dreezens et al., 2005; Thøgersen, 2011). Research has produced similar results in Western Europe, North America and emerging economies and in relation to fair trade foods (Thøgersen et al., 2016, p. 216). However, in light of the current knowledge, organic food consumption does not always indicate self-transcendence but may attract consumers who wish to be viewed as prosocial (Puska et al., 2018). In turn, some level of awareness of this signaling function might affect how the organic consumer is viewed.

Extensive evidence has recently been developed on the social signal value of favoring sustainable products (e.g., Costa, Zepeda, & Sirieix, 2014; Delgado, Harriger, & Khanna, 2015; Elliot, 2013; Rana & Paul, 2017; Van der Wal, Van Horen, & Grinstein, 2016). The top purchase reasons for relatively expensive hybrid cars, for example, have been shown to be in many cases reputational instead of environmental concerns (Maynard, 2007). In the study of Griskevicius et al. (2010), activating status motives caused consumers to favor, paradoxically, less luxurious green products over more luxurious nongreen products in a wide range of categories. It is noteworthy that the "going green to be seen" effect manifested when the green products were more expensive (but not when less) than the nongreen products. In the organic

food context, a case in point is provided by the study of Puska et al. (2016). It revealed that a male who signaled his status through favoring organic foods – compared to a male who did not – was not only perceived as more respected and altruistic (hallmarks of prosociality) but was also more favorably treated by other males witnessing the signaling (reception of larger charity donations).

Conceptually, in the consumption realm, signaling prosociality has been explained through the competitive altruism perspective of the costly signaling theory (Griskevicius et al., 2010; Puska et al., 2016, 2018). Accordingly, signals sent by favoring a sustainable alternative communicate that the actor is not a selfish individual but is willing to sacrifice for the benefit of others and possesses the resources to do so (cf. wealth) (Bliege Bird & Smith, 2005). In turn, sending this (seemingly) prosocial signal is believed to manifest in positive evaluations and finally more favorable treatment on behalf of signal receivers, thereby helping the signaler climb up in the peer group hierarchy.

Hence, although the general discussion on organic foods associates their consumption with self-transcendence values, it can also have more self-interested origins – and this may complicate the assessments of prosociality (or viewing someone in a positive light more generally). To briefly illustrate this complexity, the most logical providers of positive evaluations, people with *self-transcendence* values, might possess – because they are “true believers” – some skepticism toward the organic consumer concerning to his/her true motives (cf. Thøgersen, 2011). In turn, people who endorse *self-enhancement* values – perhaps the most unlikely providers of positive interpretations (see Dreezens et al. 2005) – might not view organic consumers in a very positive light. However, power and achievement are those very values that can contribute to one wishing to send status signals of prosociality by favoring sustainable alternatives (Schwartz, 2010).

In addition, organic food emits a symbolism congruent with all of Schwartz's main value classes (see Aertsens et al., 2009). This is an important notion because it is well known that people tend to (dis)like entities that have (in)congruent symbolism with their self-concepts (see Sirgy, 1982). That is, congruent symbolism may have an elevating impact on observers' organic consumer judgments and vice versa (cf. Allen et al., 2008; Puska et al., 2018). Specifically, *conservatism* values do not fundamentally go hand by hand with prosocial acts in Schwartz's value theory (1992, 1994, 2012). Security values, for instance, often focus on self-interest goals, thereby deterring actions on others' behalf that might entail risk to the status quo – the antecedents of a less positive interpretation. However, many key features of organic food (healthiness and food safety are the most important) are congruent with the conservative worldview (Caracciolo et al., 2016).

The case is similar for *progressive* values. A hedonistic value orientation, for example, fundamentally guides one to attain individual utility, but many characteristics of organic food, in particular superior taste and “higher quality” (e.g., freshness), are inextricably congruent with this worldview (Aertsens et al., 2009).

In summary, organic food presents more or less (in)compatible symbolism with all of Schwartz's value bases, and its consumption provides a powerful signaling function. In other words, it appears impossible to a priori determine who truly values the organic consumer. How the values of observers are associated with prosociality impressions is empirically investigated next. Before that, however, based on the previous discussion, the following hypotheses are proposed to guide this quest:

H1. Those consumers who favor organic foods are viewed as more prosocial than consumers who do not.

H2. Observing consumers' value priorities moderate the extent to which the organic food favorer is perceived as prosocial.

3. Method

The main interest of the study was to investigate who values the organic consumer. It was also proposed that one's organic food attitude mediates the impression. To that end, it was important to verify that organic foods can indeed signal socially valued traits such as prosociality and that attitudes toward them are positive. In addition, evidence was needed to determine 1) whether this mundane habit – organic food consumption – communicates about other desirable characteristics, and 2) whether there are specific product-type differences in carrying the signal (see Ellison et al., 2016). After thorough scouting of food markets, four products were selected for the study (which appear in both organic and conventional form): ketchup, butter, bacon and yogurt. These products were chosen because they represent well-known product types and are clearly distinct with symbolic meanings (highly processed, indulgent, meat and dairy), thus allowing conclusions regarding the moderating effect of the product type. The product pairs were virtually identical, manufactured by the same brand, and available in both forms during the study.

3.1 Participants and design

An online survey was conducted among consumer panelists of a Finnish market research company. All study participants (n=168) came from the Helsinki metropolitan area. The sample consisted of 49.4% men, and the most common household yearly income levels were 40000-69999 € (22%), 70000-89999 € (20%) and 20000-39999 € (19%). Participants' mean age was

47.6 years (SD=16.92) and the majority of them (64%) lived in children-free households of one or two people¹. The study employed a four-group between-subjects design. Each participant was randomly assigned to one of two conditions in which they were asked to form an image of a consumer who was presented as a regular user of either organic or conventional ketchup/butter/bacon/yogurt. They were also asked to indicate their (un)favorable attitude toward these products and reveal their value priorities.

3.2 Procedure and questionnaire

Consumer panelists received an e-mail requesting them to participate in an academic consumer impression survey. No incentives for participation were given. The online platform utilized was previously used by the author; it did not allow a participant, for instance, to move forward on the survey before answering all the questions on a given page (nor was it possible to go back to the previous page). Background characteristics were asked first (sex, age, place of residence and household income level, size and number of children living there). Then, the consumer image (DV) was measured. Specifically, photos of food products (see the Appendix for an example) were shown one at a time, and participants were asked to indicate how they perceive a regular user of that product. This questioning-logic – also referred to as the “user-imagery”-approach – has a long tradition in consumer research; it has been applied to uncover product and brand images (Parker, 2009) and their effects on consumer perceptions and attitudes (Liu et al., 2012). Here, it was used to track the images typical users of organic and conventional foods evoke in the minds of others.

¹ Corresponding average information of Finnish population are (2018): mean age 42.5 years, 49.3 % of men, 26.4 % lives in Helsinki metropolitan area, 38 500 € is average yearly household income and most of the Finns live in children-free households of 1-2 (78%). Thus, in terms of age, household type, yearly income and place of residence, the collected sample does not correspond to average Finnish population. These statistics are available in English on request at www.tilastokeskus.fi.

Prosociality impressions were measured using the 9-point semantic differentials scale based on *unselfish-selfish*, *indifferent-caring* and *rude-nice* (Griskevicius et al., 2010). Aaker's (1997) main dimensions of brand personality (*excitement*, *sophistication*, *ruggedness*, *competence* and *sincerity*) were used to check whether organic food consumption also signals other (more or less) socially valued characteristics (cf. Fennis & Pruyn, 2007). These dimensions were chosen because one of the key premises of the study is that similar to well-known brands (Apple, Tesla, etc.), *organic food* can itself be viewed as a brand (cf. Ellison et al., 2016), and therefore, it can possess a personality. Furthermore, according to Aaker (1997), some of these dimensions are logically associated with prosociality (*sincerity*) or more traditional high status (*sophistication* and *competence*).

Photos of three filler food products were also included in every questionnaire to mask the actual purpose of the research; they remained the same in all questionnaires (conventionally produced bread cheese, sirloin steak and banana). In a nutshell, regular users of each product were evaluated in terms of eight impression dimensions. After the consumer image questions, attitudes toward all the studied products were measured. Specifically, participants were asked to rate on a 5-point scale (ranging from 1=not at all to 5=very) how positively they perceive the products. Then, before investigating participants' value priorities, certain control questions were presented (e.g., familiarity with the products and brand attitudes). Schwartz's short ten-item measure (see Lindeman & Verkasalo, 2005) was used to determine the value priorities. To be more precise, participants were asked to indicate in the case of each main value cluster (see Figure 1) on a 7-point scale (ranging from 1=not at all to 7=very) how important it is to him/her. Short verbal descriptions were offered about the content of each value class (*power*, *achievement*, *universalism*, *benevolence*, *stimulation*, *self-direction*, *hedonism*, *self-direction*, *conformity and tradition*) to facilitate scoring. All the data analyses are performed using the software program SPSS.

4. Results

4.1 Consumer impressions and food production method attitudes

Table 1 illustrates the impression differences. As it reveals – in line with the first hypothesis (H1) – regular user of organic food received the higher mean value of prosociality in all four product pairs (vs. regular user of conventional food). However, only in the case of bacon and yogurt (i.e., 2/4) this difference is statistically significant. One index measure for prosociality was determined by combining the three semantic differentials of unselfish-selfish, indifferent-caring and unkind-kind (α 's ranged from .684 to .866). One-way ANOVA produced the following results regarding food favored by the participants: ketchup [$F(1,79)=1.336$, $p=.185$, $d=.29$], butter [$F(1,79)=1.418$, $p=.160$, $d=.30$], yogurt [$F(1,85)=2.253$, $p=.027$, $d=.51$] and bacon [$F(1,85)=3.854$, $p<.001$, $d=.82$].

Insert Table 1 about here.

Table 1 also shows that the organic consumer seems to be associated (varyingly) with other desirable and everyday-useful characteristics. To be more precise, in the case of bacon ($d=.92$) and yogurt ($d=.51$), favorer of the organic option (i.e., 2/4), was viewed as more sophisticated. Thus, the results suggest that favoring organic food could be a beneficial behavior strategy, as it appears to be capable to confer important social signal value by communicating about prosocial tendencies and other socially valued traits (cf. Mazar & Zhong, 2010; Puska et al., 2016). These differences cannot be explained by the participants' background or the control variables (all p -values $>.10$). Next, to understand the relationships for the “organic food brand” instead of single products, the four products were collapsed together to yield an index measure

for each impression. This was possible because the product type did not interact with the organic production method in relation to any dimension (p-values ranged from .141 to .582). The analysis continues with this product combination because it provides a more credible and holistic measure for investigating impressions generated through favoring organic food.

As for the consumers' organic food attitude, as might be expected, indications of the positive relationship were obtained. On a scale of 1–5, attitude toward organic food received a mean value of 3.64 (SD 1.04), while the corresponding rating in the case of conventional food was 3.35 (SD 1.13); this difference, however, is only marginally significant [$F(1,166)=2.858$, $p=.091$, $d=.26$]. The finding is in line with previous understanding (Marian et al., 2014, p. 52). It is also noteworthy that both means are well above the midpoint of the scale.

4.2 Correlations between values

As always when applying Schwartz's value theory, one can expect more or less correlation between the ten value classes depending on their position in the circumplex (see Schwartz & Boehnke, 2004, and Figure 1). It is common, for instance, that the values of security and benevolence correlate strongly with most of the values. It is also typical that most of the correlations are positive. Table 2 illustrates these relationships (significant correlations have been flagged with stars).

Insert Table 2 about here.

Next, four value indexes were formed along the main domains of Schwartz's circumplex (cf. Caracciolo et al., 2016; Costa et al., 2014). They were named 1) ethicality value (universalism, benevolence; $\alpha=.726$), 2) status value (power, achievement; $\alpha=.734$), 3)

conservatism value (tradition, conformity, security; $\alpha=.798$), and 4) progressive value (self-direction, hedonism, stimulation; $\alpha=.659$). For conceptual clarity, the analysis continues with these meta-indexes. It is noteworthy that the items of all four combinations correlate positively at the level $p < .01$ (see also the α 's above).

4.3 Value priorities and organic food attitude

The correlations between the four value indexes and organic food attitude were relatively weak, which was expected per se, as the correlating concepts differ so much at the level of abstraction (top of Table 3). However, the ethicality and conservatism values have significant (albeit weak, $p < .10$) relationships with organic food attitude. The indication of positive correlation between the ethicality values and organic food attitude is in line with the previous understanding. Environmental friendliness and animal welfare – which are beliefs that encompass organic food – are congruent with an ethical worldview. The indication of positive correlation between the conservatism values and organic food attitude is also understandable. As theorized previously, organic food has some symbolism congruent with a conservative worldview: people who endorse these values may think that organic food is healthier and safe. Organic food also has some symbolism congruent with progressive and status-seeking worldviews, such as superior taste and price, but no indications of a significant value-attitude relationship emerged.

Insert Table 3 about here.

4.4 Value priorities and organic consumer impressions

Table 3 also illustrates the correlations between the four value indexes and organic consumer impressions. As the table shows, the correlations follow (more or less) the same pattern as the correlations between the values and organic food attitude (i.e., the same two value indexes yielded the strongest indications of significant relationships). However, the correlations are now slightly stronger, as may be expected; people are known to evaluate others based on their consumption choices (e.g., Bellezza, Gino, & Keinan, 2013). In addition to ethical and conservative worldviews, progressive values are associated positively (albeit weakly, $p < .10$) with a prosociality impression of an organic consumer. People with these value priorities might view the organic consumer as prosocial because organic food, as an unconventional choice, could represent innovativeness and openness for new solutions – characteristics that can ultimately benefit others as well (cf. Allen et al., 2008).

As for the other measured impressions (Aaker, 1997), a positive correlation emerged between conservatism values and sincerity, competence, sophistication and excitement, while the ethicality values showed a positive correlation in relation to the first two (Table 3). In addition to prosociality, progressive values correlated positively (albeit weakly, $p < .10$) with impressions of sincerity and competence, whereas status values did not correlate significantly with any impression. Ruggedness did not correlate with any value index. In general, people with conservative value priorities seem to perceive the organic consumer most positively.

4.5 Value-attitude-impression relationship

The analyses so far suggest – in line with the second hypothesis (H2) – that observers own values moderate the prosociality image of organic food favorer. To investigate whether

organic food attitude mediates the relationship between the values and prosociality impression, a mediation analysis was performed with the ethicality and conservatism values as IVs – as they were related (at least marginally) to both organic food attitude and prosociality impression – with impression as the DV and attitude as the mediator. Multiple regression analyses were conducted first to assess each component of the proposed mediation models. The results (again) showed that the ethicality ($\beta=.26$, $t(82)=2.54$, $p=.013$) and conservatism ($\beta=.20$, $t(82)=2.52$, $p=.014$) values were positively associated with prosociality impression. In addition, the results (again) indicated that these same values ($\beta=.14$, $t(82)=1.85$, $p=.068$; $\beta=.10$, $t(82)=1.67$, $p=.099$, respectively) were positively (albeit weakly) related to organic food attitude. Finally, the results confirmed that the mediator – organic food attitude – was positively associated with prosociality impression ($\beta=.59$, $t(82)=4.33$, $p<.001$).

Because both the a-path and b-path were (at least marginally, $p<.10$) significant, the mediation analyses were tested using the bootstrapping method with bias-corrected confidence estimates; the 95% confidence interval of the indirect effects was obtained with 5000 bootstrap resamples (Preacher & Hayes, 2008). The results of these analyses supported the mediating role of organic food attitude in the relationship between the ethicality ($\beta=.09$; CI=.005 to .22) and conservatism ($\beta=.06$; CI=.002 to .15) values and prosociality impression. The results also indicated that the direct effect of these values on prosociality impression was substantially reduced when organic food attitude was controlled ($\beta=.18$, $t(82)=1.87$, $p=.065$; $\beta=.14$, $t(82)=1.94$, $p=.056$, respectively), thus suggesting mediation. It should be noted, however, that after controlling for organic food attitude, the relationship between the values and prosociality impression remained marginally significant ($p<.10$), which suggests partial mediation. Figure 2 illustrates these findings.

Insert Figure 2 about here.

As for Aaker's (1997) brand personality dimensions, some indications of partial mediation (i.e., the significance of the c-path decreased after controlling for organic food attitude, and the CIs did not include zero) were detected in the case of *competence* (ethicality and conservatism values), *sincerity* (ethicality and conservatism values) and *sophistication* (conservatism values), but not in the case of *excitement* impression. *Ruggedness* was not tested, as it did not correlate significantly with any value index.

5. Discussion and conclusions

This study has produced a novel understanding of the interplay between consumers' value orientations and the symbolism encompassing organic food consumption. The results suggested first that organic consumption can confer the valuable signal of prosociality (H1). In addition, the results indicated that favoring these types of food signals also other socially valued traits, such as sophistication. Some indications also revealed that the product type of organic food may play a moderating role in evaluations of others. The most novel finding, however, concerned who makes these socially beneficial interpretations. The results suggest that people who endorse ethical and conservative values perceive the organic consumer most positively (H2); the prosociality impression was mediated by the more specific organic food attitude for both value classes, thereby forming a value-attitude-impression relationship. Next, the implications of these findings are discussed in more detail together with the limitations and suggestions for future research.

5.1 Theoretical implications, limitations and future research suggestions

Understanding how one's value priorities are associated with the prosociality perception of organic consumers is the most intriguing aspect of this research. Yet, it is acknowledged that although the relationship between values and impressions of prosociality was strong, the corresponding relationship between values and organic food attitude was weaker (see Table 3); also the mediating effect was only partial (see Figure 2). That is to say, more research, applying different methods, is needed before a fully accurate picture can be formed.

It was not surprising that people with high ethical values viewed the organic consumer positively. Some key prosocial features of organic food, namely, environmental benefits and animal welfare, are inseparably linked to the worldview of self-transcendent people (Aertsens et al., 2009). It is also well known that individuals have a tendency to judge the social world from the vantagepoint of their in-group (cf. Wright, Dinsmore, & Kellaris, 2013). That is, we often like people who are similar to ourselves and dislike those who expressing values other than our own. For this reason also, the perception of prosociality was quite expected. Based on these notions and current organic food consumption research – suggesting that consumers with these very value priorities are prone to make organic food purchases – however, one might assume that an ethical worldview would have created the strongest impressions of prosociality. However, people who endorsed conservative values perceived organic consumers as equally prosocial and also attached other socially valued traits to them (see Table 3).

This result was more unexpected than expected because fundamentally, according to the key postulations of the Schwartz's theory, conservatism values are linked to selfish goals based on upholding the status quo. In other words, the organic consumer could be viewed – unlike in the ethical value cluster – as a threat to the hegemonic order, thus generating a less prosocial perception (Schwartz, 2010). What, then, might be the reason for this positive interpretation

(not only prosocial but also sophisticated and competent, Table 3)? People with these value priorities may believe – because many features of organic food are congruent with a conservative worldview – that organic food users are diligent and hardworking and, thus, they can afford to buy organic options. At the same time, they appear to care for the common good and welfare of others and are therefore ideal members of a stable community (cf. Allen et al., 2008).

There it still the question why self-transcendent people did not perceive the organic consumer as more prosocial than conservative people. Perhaps prosocial behavior – organic food consumption in this case – represents for them something that is automatically expected from others (i.e., witnessing it does not stir up strong consumer impressions). Another possible explanation is that people with this worldview – because they are the most frequent organic food purchasers – are well aware of the social signal value that favoring organic food can confer. In other words, they may be skeptical about the true motives of organic consumers (cf. Thøgersen, 2011). Furthermore, it has been suggested (Worsley & Lea, 2008) that people who hold strong egalitarian values (cf. self-transcendence) may be more concerned about poverty and animal welfare, since these are implicitly linked to concepts of equality. This could indicate that people who are self-transcendence oriented are perhaps more likely to value the action itself (organic consumption) than the person performing the action (organic consumer). What really is the case is left for future research to investigate.

The author encourages other researchers to examine this problem using more implicit methods (that are better able to tap into unconscious processes) than in this study. The explicit method of inquiry is one of the limitations of this paper. Priming (Janiszewski & Wyer, 2014) and neuroscience (Plassmann, Ramsøy, & Milosavljevic, 2012), for example, provides a potential method for exploring unconscious consumer behavior. In the food realm, applying more objective methods is especially relevant because the majority of food and eating-related

behaviors have been suggested to occur automatically based on intuitive reasoning (Köster, 2009). In addition, other prosocial products, such as fair trade (Coppola et al., 2017) and local (Memery et al., 2015) food, should not be ignored when studying the dynamics between values, attitudes and socially valued traits.

The key conceptual limitation of the study is that altruistic behavior (in relation to prosociality) was approached rather straightforwardly. It was roughly assumed that altruistic behavior can either be pure or to some extent motivated by selfish reasons. In reality, the case is not that simple. Clavien and Klein (2010, pp. 267-269), for instance, suggest in their paper that three main debates can be distinguished in which the term altruism is approached in distinct senses. *Biological altruism* asks: “how acts that increase the fitness of other organisms at a cost of own fitness, can go hand in hand with evolution”? It is measured in terms of reproductive success. *Behavioral altruism* wonders: “why we often fail to behave in the way predicted by the neoclassical model of human agency often used in economics”. It is defined in terms of individual costs and benefits at the end of one or a series of social actions.

The concept of *psychological altruism*, in turn, deals with the motives of altruistic behavior (primary and instrumental), while the aforementioned two focus on its outcomes (i.e., a type of “cost-benefit-analysis”). Specifically, it is view according to which at least some of our actions are motivated by altruistic primary motives (cf. pure altruism). Psychological egoism, in turn, rejects this view: accordingly, all acts of human beings are always to some extent motivated by personal benefit expectations (hedonistic rewards, resources, reputation, etc.). In short, debate of the notions of altruism is rich and nothing but unanimous (see Clavien & Klein, 2010). Future studies on prosocial consumption are highly encouraged to take these insights into account with care when producing understanding of this theme. From a practical point of view, and in contrast with the current study, measuring distinct and competing

motivations for organic food-related prosocial behavior might be a way to get deeper to the realm of altruism-driven behaviors.

Although organic foods are typically (in the case of most product types) perceived as tastier – and also healthier and more environmentally friendly, see Ellison et al., 2016 – than their conventional counterparts, a few exceptions exist; organic vice foods (e.g., sodas and cookies), for example, are often perceived as less tasty (Van Doorn, & Verhoef, 2011). Additionally, in the present study, prosociality (and some other measured impressions) was not always associated with the four organic food products to exactly the same degree (see Table 1, cases of yogurt & bacon vs. ketchup & butter), although the pattern was similar and the organic information did not interact with the product type. For this reason, organic options with different symbolic content should be studied in more depth. Organic alcohol, chocolate and more upscale products (e.g., special cooking oils) provide viable examples for research subjects.

It cannot be ignored that all the study participants lived in the metropolitan area of Helsinki (see also Footnote 1). This approach can be delimiting, as Puska et al. (2016) showed that even within the same Western and culturally homogeneous country, there may be variation in how organic food consumption is viewed. Thus, before generalizing the findings, the study should be replicated in a socio-culturally distinct area (e.g., countryside) so that a more holistic picture can be formed. In addition to Schwartz's value orientations, other possible moderators of the consumer image cannot be overlooked. Other psychological characteristics (e.g., narcissism – Naderi & Strutton, 2015), more specific environmental attitudes and political identity (cf. Brick, Sherman, & Kim, 2017) represent potential additional candidates for moderators.

As the results suggest that organic food consumption is capable of signaling desirable traits – and is also relatively inexpensive and thus available for many Western consumers – a question arises regarding the extent to which organic foods are favored for motives other than

the often self-reported and socially approved reasons of superior taste, healthiness, food safety, animal welfare and environmental benefits (Hemmerling et al., 2015). The consumer segment that considers reputation management to be an important choice criterion may be substantial (cf. Delgado et al., 2015). Consequently, future studies are encouraged to take socially disapproved motives into account more strongly when investigating organic food consumption or prosocial behavior more broadly. Furthermore, because in many Western countries – and particularly in the Scandinavia – openly status-motivated acts are associated strongly with certain moral reservations (see Sortheix & Lönnqvist, 2014), it is imperative that primarily indirect research methods (e.g., priming) are applied.

5.2 Practical implications

It is well known that due to their high price, consumers do not purchase organic foods very often, even though the self-reported attitudes toward them are usually positive (Marian et al., 2014, p. 52). The current study revealed that favoring these foods also elicited some impressions associated with traditional high status, such as sophistication – in line with “sustainable luxury” considerations (Cervellon & Shammass, 2013). Consequently, making reputational aspects more salient in the sales environment (e.g., clues capable of activating consumers’ status motives and more visible selling locations) might be a potential starting point of efforts to boost the sales of organic foods despite the high price (cf. Brick et al., 2017, p. 227; Rana & Paul, 2017). Furthermore, retailers could try to strengthen this idea by placing subtle “watching eyes” in these food sections. It has been suggested that prosocial choices increase when consumers sense that they are being observed by others (see Pfattheicher & Keller, 2015). How these elements interact (i.e., status clues and more visible selling locations together with

the feeling of being monitored in relation to preferring organic food) is an idea worth testing in the retail environment (in particular due to its cost friendliness).

Marketers of organic food products are also encouraged to develop conspicuous solutions (green shopping bags, stickers, competitions in social media, etc.) so that consumers have a better opportunity to signal their prosocial tendencies or other socially valued characteristics to others (cf. Van der Wal et al., 2016). In fact, already when consumers are shopping, they should be persuaded (e.g., orally by the store personnel or via carefully planned and placed advertisement texts) to take these shopping bags with them when next time coming to the store. Namely, it is known that purchases of not only environmentally friendly organic foods but also indulgent foods can increase, if it is possible to bring your own shopping bag (see Karmarkar & Bollinger, 2015).

On a more general level with regard to the image positioning of stores selling mainly organic products, a transition toward “trendiness” and “luxurious” might be a promising direction – in order to trigger more effectively prosocial status signaling behaviors (cf. Van der Wal et al., 2016). If this is the positioning chosen, then marketers are encouraged to refrain from excessive price-cuts and oversupply as they can mitigate the social signaling value of their offerings. In fact – counterintuitively – among some consumer segments, organic food options might be seen as more desirable if their price is relative high and the availability is more limited (cf. Griskevicius et al., 2010).

Based on the results, one cannot avoid the idea that those who hold conservative values might be a potential consumer segment for organic foods. Some indications that this value base can go hand in hand with organic food choices have been found in other studies as well (e.g., Thøgersen et al., 2016). Consequently, marketers should create creative solutions so that this segment’s positive attitudes relating to organic food consumption can be converted into purchase behavior. To illustrate, the first step is to identify those consumers who hold a

conservative worldview (e.g., by conducting careful customer data analysis). Then, organic foods should be promoted to them (e.g., by tailored e-mail campaigns) primarily through healthiness and food safety because they are features appreciated by conservative people. In contrast, ethical or hedonistic aspects should not be highlighted as strongly because they represent less important symbolism to this segment. Retailers could follow the same basic idea (i.e., emphasizing the former and avoiding the latter) in stores located in areas, where conservative values are generally believed to be cherished (e.g., rural areas).

Finally, it cannot be overemphasized that by favoring organic food, one can obtain a prosocial, altruistic reputation. Designers of societal intervention campaigns and policy makers should strongly emphasize this insight in their efforts to move consumers toward more sustainable food choices. Motivating people with a “nice guy” reputation could be a more effective means to achieve this behavior than a factual lecture about the precarious state of the environment (cf. Lehner, Mont, & Heiskanen, 2016).

References

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356.
- Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: A review. *British Food Journal*, 111(10), 1140–1167.
- Allen, M., W., Gupta, R., & Monnier, A. (2008). The interactive effect of cultural symbols and human values on taste perception. *Journal of Consumer Research*, 35(2), 294–308.
- Barrett, L., Dunbar, R., & Lycett, J. (2002). *Human evolutionary psychology*. Princeton University Press.

- Belk, R. W., Bahn, K. D., & Mayer, R. N. (1982). Developmental Recognition of Consumption Symbolism. *Journal of Consumer Research*, 9(1), 4–17.
- Bellezza, S., Gino, F., & Keinan, A. (2013). The red sneakers effect: Inferring status and competence from signals of nonconformity. *Journal of Consumer Research*, 41(1), 35–54.
- Best, H., & Mayerl, J. (2013). Values, beliefs, attitudes: An empirical study on the structure of environmental concern and recycling participation. *Social Science Quarterly*, 94(3), 691–714.
- Bliege Bird, R., & Smith, E. A. (2005). Signaling theory, strategic interaction, and symbolic capital. *Current Anthropology*, 46(2), 221–248.
- Brick, C., Sherman, D. K., & Kim, H. S. (2017). “Green to be seen” and “brown to keep down”: Visibility moderates the effect of identity on pro-environmental behavior. *Journal of Environmental Psychology*, 51, 226–238.
- Caracciolo, F., Cicia, G., Del Giudice, T., Cembalo, L., Krystallis, A., & Grunert, K. G. (2016). Human values and preferences for cleaner livestock production. *Journal of Cleaner Production*, 112(1), 121–130.
- Carlo, G., Christ, C., Laible, D., & Gulseven, Z. (2016). An evolving and developing field of study: Prosocial morality from a biological, cultural, and developmental perspective. In T. K. Shackelford, & R. D. Hansen (Eds.), *The Evolution of Morality* (pp.53–76). Springer International Publishing.
- Cervellon, M-C., & Shammass, L. (2013). The value of sustainable luxury in mature markets: A customer-based approach. *Journal of Corporate Citizenship*, 52, 90–101.
- Clavien, C., & Klein, R. A. (2010). Eager for fairness or for revenge? Psychological altruism in economics. *Economics & Philosophy*, 26(3), 267–290.

- Coppola, A., Verneau, F., Caracciolo, F., & Panico, T. (2017). Personal values and pro-social behaviour: The role of socio-economic context in fair trade consumption. *British Food Journal*, *119*(9), 1969–1982.
- Costa, S., Zepeda, L., & Sirieix, L. (2014). Exploring the social value of organic food: A qualitative study in France. *International Journal of Consumer Studies*, *38*(3), 228–237.
- Dawes, R. M., & Thaler, R. H. (1988). Anomalies: cooperation. *Journal of Economic Perspectives*, *2*(3), 187–197.
- Delgado, M. S., Harriger, J. L., & Khanna, N. (2015). The value of environmental status signaling. *Ecological Economics*, *111*(1), 1–11.
- Dreezens, E., Martijn, C., Tenbült, P., Kok, G., & De Vries, N. K. (2005). Food and values: an examination of values underlying attitudes toward genetically modified-and organically grown food products. *Appetite*, *44*(1), 115–122.
- Elliot, R. (2013). The taste for green: The possibilities and dynamics of status differentiation through “green” consumption. *Poetics*, *41*(3), 294–322.
- Ellison, B., Duff, B. R., Wang, Z., & White, T. B. (2016). Putting the organic label in context: Examining the interactions between the organic label, product type, and retail outlet. *Food Quality and Preference*, *49*, 140–150.
- Eskine, K. J. (2013). Wholesome foods and wholesome morals? Organic foods reduce prosocial behavior and harshen moral judgments. *Social Psychological and Personality Science*, *4*(2), 251–254.
- Fennis, B. S., & Pruyn, A. T. H. (2007). You are what you wear: Brand personality influences on consumer impression formation. *Journal of Business Research*, *60*(6), 634–639.
- Griskevicius, V., Tybur, J. M., & Van den Bergh, B. (2010). Going green to be seen: Status, reputation, and conspicuous conservation. *Journal of Personality and Social Psychology*, *98*(3), 392–404.

- Han, Y. J., Nunes, J. C., & Dreze, X. (2010). Signaling status with luxury goods: The role of brand prominence. *Journal of Marketing*, 74(4), 15–30.
- Hemmerling, S., Hamm, U., & Spiller, A. (2015). Consumption behaviour regarding organic food from a marketing perspective—a literature review. *Organic Agriculture*, 5(4), 277–313.
- Holt, D. B. (1998). Does cultural capital structure American consumption? *Journal of Consumer Research*, 25(1), 1–25.
- Honkanen, P., Verplanken, B., & Olsen, S. O. (2006). Ethical values and motives driving organic food choice. *Journal of Consumer Behaviour*, 5(5), 420–430.
- Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6(2-3), 94–110.
- Janiszewski, C., & Wyer, R. S. (2014). Content and process priming: A review. *Journal of Consumer Psychology*, 24(1), 96–118.
- Kaad-Hansen, L. (2017, December 7). The world leading organic nation. *Organic Denmark*, Retrieved from <http://organicdenmark.com/organics-in-denmark/facts-and-figures>
- Kafashan, S., Sparks, A., Griskevicius, V., & Barclay, P. (2014). Prosocial behavior and social status. In J. T. Cheng, J. L. Tracy, & C. Anderson (Eds.), *The psychology of social status* (pp. 139–158). Springer, New York, NY.
- Karmarkar, U. R., & Bollinger, B. (2015). BYOB: How bringing your own shopping bags leads to treating yourself and the environment. *Journal of Marketing*, 79(4), 1–15.
- Karp, D. G. (1996). Values and their effect on pro-environmental behavior. *Environment and Behavior*, 28(1), 111–133.

- Krystallis, A., Grunert, K. G., de Barcellos, M. D., Perrea, T., & Verbeke, W. (2012). Consumer attitudes towards sustainability aspects of food production: Insights from three continents. *Journal of Marketing Management*, 28(3–4), 334–372.
- Köster, E. P. (2009). Diversity in the determinants of food choice: A psychological perspective. *Food Quality and Preference*, 20(2), 70–82.
- Lehner, M., Mont, O., & Heiskanen, E. (2016). Nudging—A promising tool for sustainable consumption behaviour?. *Journal of Cleaner Production*, 134(15), 166–177.
- Lindeman, M., & Verkasalo, M. (2005). Measuring values with the Short Schwartz's Value Survey. *Journal of Personality Assessment*, 85(2), 170–178.
- Liu, F., Li, J., Mizerski, D., & Soh, H. (2012). Self-congruity, brand attitude, and brand loyalty: A study on luxury brands, *European Journal of Marketing*, 46(7–8), 922–937.
- Marian, L., Chrysochou, P., Krystallis, A., & Thøgersen, J. (2014). The role of price as a product attribute in the organic food context: An exploration based on actual purchase data. *Food Quality and Preference*, 37, 52–60.
- Maynard, M. (2007, July 4). Say “hybrid” and many people will hear “Prius”. *The New York Times*, Retrieved from <http://www.nytimes.com/2007/07/04/business/04hybrid.html>
- Mazar, N., & Zhong, C-B. (2010). Do green products make us better people? *Psychological Science*, 21(4), 494–498.
- Memery, J., Angell, R., Megicks, P., & Lindgreen, A. (2015). Unpicking motives to purchase locally-produced food: Analysis of direct and moderation effects. *European Journal of Marketing*. 48(7–8), 1207–1233.
- Naderi, I., & Strutton, D. (2015). I support sustainability but only when doing so reflects fabulously on me: Can green narcissists be cultivated? *Journal of Macromarketing*, 35(1), 70–83.

- Nelissen, R. M. A., & Meijers, M. H. C. (2011). Social benefits of luxury brands as costly signals of wealth and status. *Evolution and Human Behavior*, 32(5), 343–355.
- Parker, B. T. (2009). A comparison of brand personality and brand-user imagery congruence. *Journal of Consumer Marketing*, 26(3), 175–184.
- Pfattheicher, S., & Keller, J. (2015). The watching eyes phenomenon: The role of a sense of being seen and public self-awareness. *European Journal of Social Psychology*, 45(5), 560–566.
- Plassmann, H., Ramsøy, T. Z., & Milosavljevic, M. (2012). Branding the brain: A critical review and outlook. *Journal of Consumer Psychology*, 22(1), 18–36.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Puska, P., Kurki, S., Lähdesmäki, M., Siltaoja, M., & Luomala, H. (2016). Male-male status signaling through favoring organic foods: Is the signaler perceived and treated as a friend or a foe? *Psychology & Marketing*. 28(8), 843–855.
- Puska, P., Kurki, S., Lähdesmäki, M., Siltaoja, M., & Luomala, H. (2018). Sweet taste of prosocial status signaling: When eating organic foods makes you happy and hopeful. *Appetite*, 121(1), 348–359.
- Rana, J., & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, 38(1), 157–165.
- Reynolds, K. J., Turner, J. C., & Haslam, S. A. (2000). When are we better than them and they worse than us? A closer look at social discrimination in positive and negative domains. *Journal of Personality and Social Psychology*, 78(1), 64.

- Scalco, A., Noventa, S., Sartori, R., & Ceschi, A. (2017). Predicting organic food consumption: A meta-analytic structural equation model based on the theory of planned behavior. *Appetite, 112*(1), 235–248.
- Schifferstein, H. N., & Ophuis, P. A. O. (1998). Health-related determinants of organic food consumption in the Netherlands. *Food Quality and Preference, 9*(3), 119–133.
- Schleenbecker, R., & Hamm, U. (2013). Consumers' perception of organic product characteristics. A review. *Appetite, 71*(1), 420–429.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology, 25*, 1–65.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values?. *Journal of Social Issues, 50*(4), 19–45.
- Schwartz, S. H. (2006). A theory of cultural value orientations: Explication and applications. *Comparative Sociology, 5*(2), 137–182.
- Schwartz, S. H. (2010). Basic values: How they motivate and inhibit prosocial behavior. *Prosocial Motives, Emotions, and Behavior: The Better Angels of our Nature, 14*, 221–241.
- Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online readings in Psychology and Culture, 2*(1), 11.
- Schwartz, S. H., & Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. *Journal of Research in Personality, 38*(3), 230–255.
- Sirgy, M. J. (1982). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research, 9*(3), 287–300.
- Soler, M. (2012). Costly signaling, ritual and cooperation: Evidence from Candomblé, an Afro Brazilian religion. *Evolution and Human Behavior, 33*(4), 346–356.

- Sortheix, F. M., & Lönnqvist, J. E. (2014). Personal value priorities and life satisfaction in Europe: The moderating role of socioeconomic development. *Journal of Cross-Cultural Psychology, 45*(2), 282–299.
- Steg, L. (2015). Environmental psychology and sustainable consumption. In L. A. Reisch, & J. Thøgersen (Eds.), *Handbook of research on sustainable consumption* (pp.70–83). Cheltenham, UK: Edward Elgar Publishing.
- Thøgersen, J. (2011). Green shopping: for selfish reasons or the common good?. *American Behavioral Scientist, 55*(8), 1052–1076.
- Thøgersen, J., Jørgensen, A-K., & Sandager, S. (2012). Consumer decision making regarding a “green” everyday product. *Psychology & Marketing, 29*(4), 187–197.
- Thøgersen, J., Zhou, Y., & Huang, G. (2016). How stable is the value basis for organic food consumption in China?. *Journal of Cleaner Production, 134*(15), 214–224.
- Thøgersen, J., & Ölander, F. (2006). To what degree are environmentally beneficial choices reflective of a general conservation stance?. *Environment and Behavior, 38*(4), 550–569.
- Van der Wal, A. J., Van Horen, F., & Grinstein, A. (2016). The paradox of ‘green to be seen’: Green high-status shoppers excessively use (branded) shopping bags. *International Journal of Research in Marketing, 33*(1), 216–219.
- Van Doorn, J., & Verhoef, P. C. (2011). Willingness to pay for organic products: Differences between virtue and vice foods. *International Journal of Research in Marketing, 28*(3), 167–180.
- Van Vugt, M., & Van Lange, P. A. (2006). The altruism puzzle: Psychological adaptations for prosocial behavior. *Evolution and social psychology*. In M. Schaller, D. T. Kenrick, & J. A. Simpson (Eds.), *Evolution and Social Psychology. Frontiers of Social Psychology* (pp.237–262). Psychology Press Ltd, United Kingdom.

Worsley, A., & Lea, E. (2008). Consumer concerns about food and health: Examination of general and specific relationships with personal values and demographics. *British Food Journal*, 110(11), 1106–1118.

Wright, S. A., Dinsmore, J. B., & Kellaris, J. J. (2013). How group loyalties shape ethical judgment and punishment preferences. *Psychology & Marketing*, 30(3), 203–210.

Zepeda, L., & Deal, D. (2009). Organic and local food consumer behaviour: Alphabet theory. *International Journal of Consumer Studies*, 33(6), 697–705.

Insert appendix about here.

Table 1. Impressions of favoring organic vs. conventional food products.

Impression	Ketchup (n=40 & n=41) Organic Conventional Means (SD):		Butter (n=40 & n=41) Organic Conventional Means (SD):	
	Prosociality	5.90 (1.29) a	5.55 (1.10) a	5.99 (1.48) a
Excitement	5.03 (1.51) a	4.63 (1.69) a	5.73 (1.52) a	5.27 (1.62) a
Sophistication	5.35 (1.39) a	4.80 (1.75) a	6.00 (1.66) a	5.63 (1.70) a
Ruggedness	4.95 (1.55) a	4.88 (1.51) a	5.68 (1.46) a	5.54 (1.72) a
Competence	5.65 (1.67) a	5.59 (1.15) a	5.73 (1.55) a	5.63 (1.58) a
Sincerity	5.93 (1.60) a	6.10 (1.33) a	6.25 (1.61) a	6.23 (1.62) a
Impression	Yogurt (n=44 & n=43) Organic Conventional Means (SD):		Bacon (n=44 & n=43) Organic Conventional Means (SD):	
	Prosociality	5.55 (1.40) b	4.88 (1.20) a	5.73 (1.16) b
Excitement	4.80 (1.86) b	4.00 (1.66) a	5.30 (1.50) a	5.09 (1.59) a
Sophistication	5.07 (1.56) b	4.28 (1.56) a	5.68 (1.24) b	4.44 (1.46) a
Ruggedness	5.02 (1.52) b	4.28 (1.60) a	5.36 (1.38) a	5.09 (1.40) a
Competence	5.45 (1.56) a	4.93 (1.53) a	5.61 (1.40) a	5.26 (1.21) a
Sincerity	5.66 (1.57) a	5.14 (1.47) a	5.93 (1.44) b	5.28 (1.50) a

Notes: Means with different superscript letters (a,b) differ significantly at $p < .05$; Scale 1-9: 1=completely

disagree, 9=completely agree

Table 2. Correlations between Schwartz's main values.

	Power	Achievement	Universalism	Benevolence	Stimulation	Self-direction	Hedonism	Security	Conformity	Tradition
Power	-	0.554*	-0.086	-0.229*	0.091	-0.149	-0.086	-0.272*	-0.158	-0.016
Achievement	0.554*	-	0.098	0.096	0.169	0.187	0.353*	0.052	0.032	0.116
Universalism	-0.086	0.098	-	0.637*	0.140	0.425*	0.095	0.378*	0.171	0.271*
Benevolence	-0.229*	0.096	0.637*	-	0.281*	0.524*	0.376*	0.691*	0.496*	0.381*
Stimulation	0.091	0.169	0.140	0.281*	-	0.392*	0.477*	0.197	0.154	0.332*
Self-direction	-0.149	0.187	0.425*	0.524*	0.392*	-	0.290*	0.353*	0.112	0.131
Hedonism	-0.086	0.353*	0.095	0.376*	0.477*	0.290*	-	0.317*	0.325*	0.184
Security	-0.272*	0.052	0.378*	0.691*	0.197	0.353*	0.317*	-	0.615*	0.438*
Conformity	-0.158	0.032	0.171	0.496*	0.154	0.112	0.325*	0.615*	-	0.630*
Tradition	-0.016	0.116	0.271*	0.381*	0.332*	0.131	0.184	0.438*	0.630*	-

Note: Correlations of (-)0.229 or higher are significant at $p < 0.5$, 0.290 or higher at $p < 0.1$

Table 3. Correlations between value classes and (1) organic food attitude and (2) organic consumer impressions.

	Status value	Ethicality value	Progressive value	Conservatism value
Organic food attitude	-0.114	0.200 *	-0.001	0.181 *
Prosociality	0.121	0.270 **	0.229 *	0.268 **
Sincerity	0.123	0.307 ***	0.201 *	0.243 **
Competence	0.101	0.219 **	0.201 *	0.265 **
Sophistication	0.107	0.153	0.178	0.282 ***
Excitement	0.049	0.145	0.102	0.284 ***
Ruggedness	0.069	0.168	0.104	0.176

Note: Correlations with * are significant at $p < .10$, with ** at $p < .05$ and with *** at $p < .01$

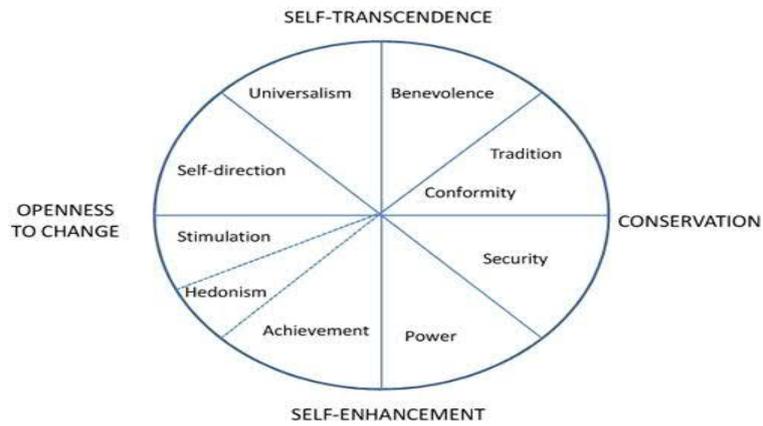


Figure 1. Schwartz's value theory: A circumplex structure of ten value classes clustered in four main value domains in a two-dimensional space.

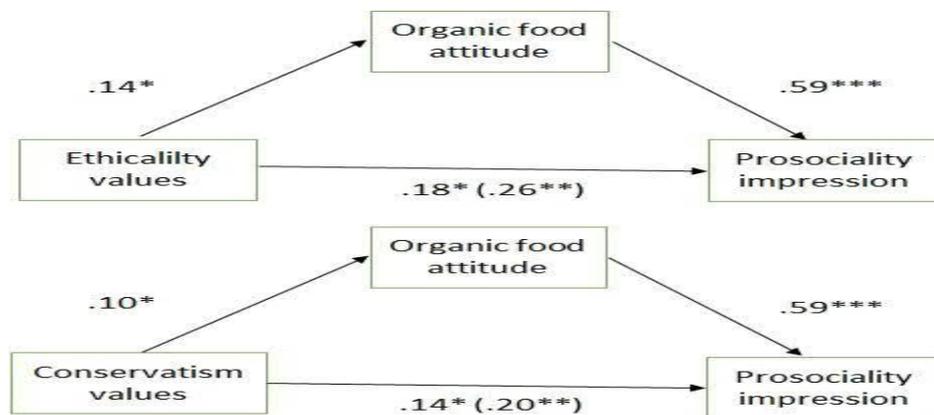


Figure 2. Indirect effects of ethicality and conservatism values on prosociality impression through organic food attitude (* $p < .10$, ** $p < .05$, *** $p < .01$).



Appendix. Example of food product photos used in study (organic on left, conventional on right).