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# Wholesome Foods and Wholesome Morals? Organic Foods Reduce Prosocial Behavior and Harshen Moral Judgments

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Kendall J. Eskine<sup>1</sup>

## Abstract

Recent research has revealed that specific tastes can influence moral processing, with sweet tastes inducing prosocial behavior and disgusting tastes harshening moral judgments. Do similar effects apply to different food types (comfort foods, organic foods, etc.)? Although organic foods are often marketed with moral terms (e.g., Honest Tea, Purity Life, and Smart Balance), no research to date has investigated the extent to which exposure to organic foods influences moral judgments or behavior. After viewing a few organic foods, comfort foods, or control foods, participants who were exposed to organic foods volunteered significantly less time to help a needy stranger, and they judged moral transgressions significantly harsher than those who viewed nonorganic foods. These results suggest that exposure to organic foods may lead people to affirm their moral identities, which attenuates their desire to be altruistic.

## Keywords

morality, prosociality, organic food, moral licensing, embodied cognition

Organic foods, which are typically the products of ethical and environmentally friendly practices, are often marketed with moral terms (e.g., Honest Tea, Purity Life, Smart Balance, etc.). Is this just a marketing strategy, a linguistic coincidence, or do people's conceptual representations of organic food and morality actually share the same mental space? Some research suggests that exposure to different types of tastes and foods can influence higher order judgments involved with complex domains like morality and prosocial behavior.

In the domain of taste, Meier, Moeller, Riemer-Peltz, and Robinson (2012) revealed that people were more willing to help others after tasting something sweet, whereas Eskine, Kacinik, and Prinz (2011) showed that disgusting tastes can lead to harsher moral judgments. In the domain of food, Trisoli and Gabriel (2011) found that exposure to comfort foods like chicken soup alleviated feelings of loneliness, and Bastian, Loughnan, Haslam, and Radke (2012) revealed that the extent to which meat-eaters attributed moral status to animals depended largely on whether they were likely to consume those animals. For example, animals that were perceived as highly edible (e.g., chicken, cow, and fish) were judged to be significantly less capable of possessing various mental capacities (e.g., morality, pain, pleasure, memory, emotion, etc.) than animals that were perceived as inedible (e.g., mole, rat, and sloth).

While the above research highlights how our daily interactions with different foods and tastes can influence moral processing, no research to date has experimentally investigated the extent to which exposure to organic foods influences moral

behavior and moral judgments. In order to test whether exposure to organic food does in fact give rise to the moral superiority suggested by its marketing, participants were exposed to one of the three different food types (organic, comfort, or control) prior to receiving an opportunity to help a needy other and making moral judgments.

Two outcomes are likely with respect to organic food. Drawing from Schnall, Roper, and Fessler's (2010) research on feelings of elevation, one possibility is that exposure to organic foods will make participants feel good about themselves and therefore subsequently engage in more altruistic acts, which would result in greater volunteerism and kinder moral judgments. On the other hand, the second possibility would make opposite predictions.

Rozin (1999) argued that moralization takes place when preferences are transformed into values, a process that often occurs in health domains (e.g., cigarette smoking, drugs, etc.). Going beyond mere marketing terms, there are at least two possible routes that may lead organic food exposure to increase the salience of one's moral identity. The first route leads people to

<sup>1</sup> Department of Psychological Sciences, Loyola University New Orleans, New Orleans, LA, USA

## Corresponding Author:

Kendall J. Eskine, Department of Psychological Sciences, Loyola University New Orleans, Box 194, 6363 Saint Charles Avenue, New Orleans, LA 70118, USA.  
Email: kjeskine@loyno.edu



**Figure 1.** Example food item pictures from the organic, comfort, and control conditions, respectively.

moralize their preferences for organic foods for reasons of health, what some might consider “moral expansion” (Rozin, 1997). The second route leads people to moralize their preferences for organic foods because it is viewed as a morally superior choice for the environment, which is an example of “moral piggybacking” (Rozin, 1997). While it is also possible that some people could take both routes, the resulting moralization processes should similarly cause individuals’ moral identities to become more salient when being exposed to organic foods. Based on the research from moral licensing, which indicates that people are *less* likely to act altruistically when their moral identities are salient (Sachdeva, Ilic, & Medin, 2009), the present research predicts that those exposed to organic foods would help less and make harsher moral judgments compared to those exposed to nonorganic foods.

## Method

Sixty-two Loyola University undergraduates (37 females and 25 males) participated in the present experiment for course credit and were randomly assigned to one of the three food conditions (organic, comfort, and control) in a between-subjects design. Told that they were participating in two unrelated studies (a consumer research survey about food desirability and a separate moral judgment task), participants were first given a packet containing four counterbalanced pictures of food items from one of the following categories: organic foods with organic food labels (apple, spinach, tomato, and carrot), comfort foods (ice cream, cookie, chocolate, and brownie), or control foods (oatmeal, rice, mustard, and beans) (see Figure 1). Participants also rated each food item on a 7-point scale (1 = *not at all desirable* to 7 = *very desirable*) to help corroborate the cover story as well as provide information about their personal food preferences. All food items were chosen based on survey results from a separate sample of participants ( $N = 28$ , 16 females) during which they rated a variety of foods on a 7-point scale (1 = *typical comfort food*, 4 = *neither comfort nor organic food*, 7 = *typical organic food*), giving the following

results for organic foods ( $M = 6.61$ ,  $SD = 1.17$ ), comfort foods ( $M = 1.54$ ,  $SD = .98$ ), and neither comfort nor organic and hence “control” foods ( $M = 4.32$ ,  $SD = 1.37$ ).

Participants next received a packet containing six counterbalanced moral transgressions describing second cousins engaging in consensual incest, a man eating his already-dead dog, a congressman accepting bribes, a lawyer prowling hospitals for victims, a person shoplifting, and a student stealing library books (Wheatley & Haidt, 2005). Each moral judgment was indicated on a 7-point scale (1 = *not at all morally wrong* to 7 = *very morally wrong*). As with previous research (Eskine, Kaciniak, & Prinz, 2011), all judgments were averaged into a single score.

After next answering demographic questions, participants were told “that another professor from another department is also conducting research and really needs volunteers.” They were informed that they would not receive course credit or compensation for their help and were asked to indicate how many minutes (of the 30) they would be willing to volunteer (a commonly used measure of prosocial behavior, Meier et al., 2012). All participants were debriefed and probed for suspicion, although no participants indicated any awareness of the experiment’s purpose.

## Results

A between-subjects analysis of variance (ANOVA) revealed an overall effect of food type on prosocial behavior,  $F(2, 59) = 8.894$ ,  $p < .001$ ,  $\eta_p^2 = .232$ , and a follow-up Tukey’s honestly significant difference (HSD) test showed that those exposed to organic food volunteered significantly less time ( $n = 20$ ,  $M = 13.40$ ,  $SD = 9.38$ .) than those exposed to control foods ( $n = 20$ ,  $M = 19.88$ ,  $SD = 10.33$ ),  $p < .05$ , or comfort foods ( $n = 22$ ,  $M = 24.55$ ,  $SD = 5.49$ ),  $p < .001$ , with the latter two groups not significantly differing (see Table 1). To demonstrate that these effects were driven by organic food exposure and not the subjective desirability of each food item, each participant’s four

**Table 1.** Participants' Prosocial Behavior (in Minutes) and Moral Judgments as a Function of Food Type.

Condition	Organic Food	Control Food	Comfort Food
Prosocial behavior	13.40 (9.38)	19.88 (10.33)	24.55 (5.49)
Moral judgment	5.58 (0.59)	5.08 (0.62)	4.89 (0.57)

Mean ratings of prosocial behavior and moral judgments in each condition with standard deviations in parentheses. Higher values in the prosocial and moral judgment variables indicate minutes willing to help and harsher moral judgments, respectively.

food desirability ratings were averaged into an overall desirability score, which was then treated as a covariate. The result of this analysis of covariance (ANCOVA) was still significant,  $F(2, 58) = 8.042, p = .001, \eta_p^2 = .217$ , thus ruling out the effects of subjective food desirability.

A separate ANOVA on averaged moral judgments indicated an overall effect of food type,  $F(2, 59) = 7.516, p = .001, \eta_p^2 = .203$ , and a follow-up Tukey's HSD test showed that those exposed to organic food made significantly harsher moral judgments ( $M = 5.58, SD = .59$ ) than those exposed to control foods ( $M = 5.08, SD = .62, p < .05$ , or comfort foods ( $M = 4.89, SD = .57, p = .001$ , with the latter two groups not significantly differing (see Table 1). An ANCOVA was conducted with desirability as a covariate and still revealed a significant effect of food type,  $F(2, 58) = 7.210, p = .002, \eta_p^2 = .199$ , indicating that food desirability did not play a significant role in moral judgment.

## Discussion

Together, these findings reveal that organic foods and morality do share the same conceptual space. As predicted, the findings showed that exposure to ethical and environmentally friendly foods resulted in reduced prosocial behavior and harsher moral judgments. Importantly, the results also indicated that participants' food preferences did not influence their prosociality or moral judgments, thus ruling out subjective desirability in the present research. Therefore, the present research suggests that exposure to organic foods helps people affirm their moral identities and attenuates their desire to be altruistic, as found by Sachdeva, Iliev, and Medin (2009). In a similar vein, Mazar and Zhong (2010) provide evidence for such a view. In particular, they found that participants were more likely to cheat and steal after purchasing "green" rather than conventional products. Since green and organic products share many commonalities, it seems likely that environmentally friendly products can actually affect the salience of one's moral identity and induce moral licensing.

Drawing from Rozin (1997, 1999), two mechanisms were described to explain how exposure to organic foods might affirm individuals' moral identities. According to the moral expansion route, some might moralize their preferences for organic foods for health reasons, whereas the moral piggybacking route asserts that others might moralize organic food because it is perceived as a morally superior choice for the environment, other organisms, and so on. While it is possible that one could simultaneously endorse both routes, they each

have different theoretical implications. The moral expansion route proposes that moralization is carried by cognitive-rational processes, whereas the moral piggybacking route is carried by affective processes (Rozin, 1999). Accordingly, these routes might lead us to make different predictions about the extent to which exposure to organic food affirms individuals' moral identities and enables moral licensing.

Classic findings in persuasion and attitude formation may shed light on this issue (Petty & Cacioppo, 1984). It is well documented that long-lasting attitude change is a product of cognitive-rational processes (central route) rather than affective processes (peripheral route). Given that both the moralization and the persuasion approaches position cognitive and affective information in distinct channels, similar patterns might occur in moralization processes. For example, while both routes can lead to moralization of organic food in general, those who moralize in cognitive formats might be more likely to experience moral licensing than those who moralize in affective formats because, for them, organic food represents a deliberate choice (rather than a mere emotional association) in a domain that is meaningful to them, which further strengthens the salience of their moral identities after exposure to organic food. Although the present research did not assess participants' cognitive and affective attitudes toward organic food, this raises important empirical questions and warrants further investigation.

What does this mean for organic marketing? Should advertisers be cautious of how hard they "push" the branding of their products? One possibility is that those who simply purchase organic products will be less likely to engage in other meaningful acts of environmental protection. Although organic products are indubitably environmentally sound and ethical choices, perhaps milder, more subtle advertisements could help promote the beneficial qualities of these products without inadvertently inducing moral licensing in its consumers.

Further, given the general nutritional differences and bodily effects of prototypical comfort and organic foods, future research should also explore whether *actually* consuming organic or comfort food differentially influences moral behaviors. While the results from the comfort food condition did not significantly differ from the control condition, the trends suggest that comfort food exposure can induce more prosocial behavior and kinder moral judgments, which is compatible with previous descriptions of comfort food as a "social surrogate" (Trisoli & Gabriel, 2011). According to this view, comfort foods help connect people in a way that fosters

interpersonal warmth. Therefore, differentiating the effects of organic and comfort food exposure and consumption remains an important avenue for future research.

More generally, these results are important because food is a fundamental part of everyone's life, and as food choices continue to expand we should explore its psychological consequences. People celebrate with food, plan their days around it, and even organize romantic encounters along various confectionary delights. Even beyond first dates and lunch breaks, food can also connect people to their heritage. Recipes can convey information about a family's history, its geography, and its relationship to the environment. Despite its ubiquity in daily life, food has been vastly underexplored in the psychological sciences, although important strides have been made recently (Zhong & DeVoe, 2010). For example, Schuldt, Muller, and Schwarz (in press) found that participants judged chocolate to contain fewer calories when it was described as fair trade (Study 1) or as treating its workers ethically (Study 2) when compared to chocolates with no such descriptions. Taken together, this research has considerable implications for understanding how our food choices and experiences shape more than just our nutrition.

As Paul Rozin (1996, p. 18) noted, "Food progresses from being a source of nutrition and sensory pleasure to being a social marker, an aesthetic experience, a source of meaning and metaphor, and, often, a moral entity." Indeed, future research should investigate food and its corresponding embodied states, which might serve as an important primary metaphor (Lakoff & Johnson, 1999) that affects the representation, processing, and development of our moral conceptual architecture.

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### Author Biography

**Kendall J. Eskine** is an assistant professor at the Loyola University New Orleans, who studies embodied cognition, food psychology, and the representation and processing of abstract concepts.