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Food Quality and Preference

Short Communication

Taste moral, taste good: The effects of Fairtrade logo and second language on product taste evaluation ☆

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ABSTRACT

Moral issues surrounding products are attracting attention of researchers. Fairtrade products bear logos that communicate moral information, which indicates justice for the poor. Studies found that products tagged with Fairtrade logos were believed to taste better. Furthermore, people tend to judge moral acts as more virtuous while moral violations as less condemnable when information is presented in their second languages. Built on these findings, the present study aims to examine how interaction of Fairtrade logos and second languages influences consumers' taste evaluation of products. It suggests that, mediated by positive affects, Chinese green tea bearing a Fairtrade logo is judged to taste better than the same tea without a Fairtrade logo. More importantly, interaction of a Fairtrade logo and use of second language significantly enhanced the reported product taste. Lastly, limitations and possible applications of our findings are discussed.

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1. Introduction

Nowadays, consumers are responding to global trade with their purchase behavior, which prefers products that are produced respecting economic, environmental, and social standards (e.g. Lee & Yun, 2015). Moral consumerism has arisen alongside this trend, referring to consumption that takes moral considerations into account. The sphere of moral consumerism entails issues such as fair prices for farmers, prevention of child labor, and animal trade (e.g. Zander & Hamm, 2010). In both global and local markets, there are an increasing number of products communicating moral values with consumers through their logos, such as the Fairtrade logo. *Fairtrade* is an indication of justice. Studies found that Fairtrade logo and its underlying moral values could significantly alter consumers' perception of products (Lotz, Christandl, & Fetchenhauer, 2013; Poelman, Mojet, Lyon, & Sefa-Dedeh, 2008; Rousseau, 2015).

The trend of globalization also strengthens connections between diverse lingual communities, so that more and more individuals can speak a second language. Psychological research has shown that use of a second language impacts our moral judgments and behavior (Cipolletti, McFarlane, & Weissglass, 2016).

In line with above theories, our research aims to examine the effect of Fairtrade logos on Chinese consumers' reported taste of green tea. Furthermore, this study explores how the use of a second language influences taste ratings of products with "moral logos". Will consumers favorably judge "moral products"? Will the use of second language enhance the taste of the "moral product"? Answers to these questions have significant theoretical and applied values.

1.1. Morality and product perception

Since the concept of moral consumption was proposed in the 1980s, there has been a growing body of research on moral issues surrounding consumption (e.g. Langen, 2011; Zander & Hamm, 2010). Especially, some scholars are interested in how products with moral cues affect consumers' perception of the products.

Consumption can be closely connected to morality. Studies on embodied cognition found that moral judgments are influenced by physical sensations. For instance, participants who drink bitter beverages tend to make harsher moral judgments on moral transgressions (Eskine, Kacinik, & Prinz, 2011). The mere exposure to pictures of ecological products rather than conventional products makes participants act more altruistically in an anonymous

dictator game (Mazar & Zhong, 2010). In turn, products with moral values also tend to influence individuals' physical sensations.

The psychological mechanism underlying such phenomena can be the pursuit of consistency. As consumers are motivated to search for consistency between their expectations and real experiences of products, their judgments on products tend to be influenced by their beliefs and expectations (Shiv, Carmon, & Ariely, 2005; also see Cardello, 1995, for a review). In particular, consumers are likely to base their expectations of products on their extrinsic cues, such as price, appearance, and labels (See Piqueras-Fiszman & Spence, 2015, for a review). The labeling effect refers to consumers base their judgments of products on their labels (Pohl, 2004). For instance, fruits are believed to taste better when they are labeled as eco-friendly (Sörqvist et al., 2015). Moral labels – labels that communicate moral values – also have positive effects on taste experience. Consumers might unconsciously rate coffee and chocolates with a Fairtrade logo to have a better taste than their conventional counterparts (Lotz et al., 2013). Although purchasing such products helps suppliers from developing countries to earn a decent wage and thus live better lives, neither does this logo really imply higher quality nor better taste of the products. Therefore, the increased taste ratings tend to result from the moral value behind the Fairtrade logo.

Despite the effect of Fairtrade logos on product taste enhancement found by Lotz and colleagues, their study was only conducted in a Western setting. Therefore, the present study aims to explore whether the Fairtrade logo has a similar effect on taste evaluation in Chinese culture.

1.2. Moral judgment and second language

Moral judgments can reflect one's moral beliefs, which are thought to be unaffected by irrelevant factors such as the use of language. Provided that one understands a moral violation scenario correctly, the judgment should remain consistent, no matter in which language the story is presented. However, it was demonstrated that people's judgments on moral violations are influenced by whether these scenarios are described in their first or second languages (Costa et al., 2014; Geipel, Hadjichristidis, & Surian, 2015). In Germany and Italy, when scenarios regarding to several private violations, such as consensual incest, are printed in participants' second languages, participants tend to judge them as less condemnable. Furthermore, using second languages also elicit less harsh judgments on violations of everyday social and moral norms in community, such as taking the last seat on a crowded bus, and cutting in line when in a hurry (Geipel et al., 2015). Therefore, using a second language promotes less harsh moral judgments than using one's first language does.

Several explanations of such second language effects on moral judgments are plausible. Research has shown that a second language can attenuate emotional response to words and phrases (Caldwell-Harris & Ayçiçeği-Dinn, 2009), thus facilitating less harsh moral judgments. Furthermore, individual moral judgments could be influenced by the psychological distance of moral acts. People tend to judge moral acts as more virtuous when they are psychologically distant (Eyal, Liberman, & Trope, 2008). Since second languages are more psychologically distant than first languages to speakers, they are likely to reduce the criteria of moral judgment-making. Lastly, as moral and social rules are learned and experienced through interactions involving first languages, second languages might lead to a reduced activation of these norms and rules, and thus result in less strict moral judgments.

Although many moral psychologists are investigating the effect of second languages, research so far has focused on judgments of fabricated moral scenarios. It has not been extended to more applicable fields, and its implication in marketing has yet to be explored.

2. Overview of the current research

Based on previous findings, we conducted empirical research to test the influence of both the Fairtrade logo and a second language on product taste evaluation. In an experiment, we used Maofeng green tea, a popular type of drink among Chinese, as test material. The first language for our participants is Chinese, while the second language is English.

We first propose that the appearance of the Fairtrade logo can improve taste experience of the green tea among Chinese consumers. Furthermore, as a second language can promote less harsh moral judgment, we expect taste ratings for the tea to be enhanced by the interaction of the Fairtrade logo and the use of English.

In this study, we ensured participants' correct understanding of the Fairtrade logo by a manipulation check. We also controlled their English proficiency. Because all our participants are students from Tsinghua University, their average English test score is above 140/150 in the National Higher Education Entrance Examination. Considering the little variance of participants' objective English test scores, we used their self-reported English proficiency as a control variable. Furthermore, as previous research found that the Fairtrade logo effect was mediated by positive affects (Lotz et al., 2013), we also measured the positive affects participants experienced, and examined their mediating effect.

3. Method

3.1. Participants

Seventy-four undergraduate students of Tsinghua University (41 females; 19.32 ± 1.35 year-old representing various majors) participated in the experiment for course credit. Our study only recruited local students whose first language was Chinese and second language was English.

3.2. Experiment design

To measure the effect of the Fairtrade logo and a second language on reported taste experience, a 2 (logo: Fairtrade logo vs. No Fairtrade logo) × 2 (language: first vs. second) between-subject design was adopted.

We put the same amount of tealeaves in four identical transparent plastic bags to avoid additional information about the product. In the Fairtrade-logo condition, we tagged the plastic bags with Chinese and English versions of Fairtrade logo respectively (See Figs. 1a and 1b). Throughout the experiment, Chinese was used in all experimental instructions and materials in the first-language condition, while English was used in the second-language condition. Participants were randomly assigned to one of the four conditions by drawing.

3.3. Procedures

The lab, equipped with soundproof cubicles, was located at the Department of Psychology, Tsinghua University. Each participant was seated in a cubicle, and the experiment was conducted at a constant room temperature of 25 °C. Upon arrival, all participants were told that they needed to taste the forthcoming Chinese green tea produced by a local factory and then completed a questionnaire. With the clarification that the product came from a local factory, participants, especially those in English condition, were unlikely to confuse the origin of the product.

Fig. 1a. Fairtrade logo in English.

Fig. 1b. Fairtrade logo in Chinese.

Firstly, participants in each condition were shown one of the plastics bags with the green tealeaves inside. In the Fairtrade-logo condition, participants saw the product with the Fairtrade logo on the bags, while the control group saw the same package only without Fairtrade logo. After that, all participants were instructed to read a statement about the Fairtrade logo (Lotz et al., 2013). A manipulation check followed the statement with a short multiple-choice question on what Fairtrade is. The correct answer (B) reflected that participants rightly understood the meaning of the Fairtrade logo instead of falsely assuming a good quality to the product. Participants who did not choose (B) were excluded from all analyses. Then, participants in each condition drank a small cup of tea and were informed that the tea was made from the product they just saw. Although the treatment group thought they drank the "Fairtrade" tea, all participants in effect tasted the same product. The tea was prepared by our experimenters in advance, with 70–80 °C hot water, 30 g tealeaves immersed for 10 min, and was served at around 60 °C. The tea was prepared in a big teapot together to ensure participants drank the tea with the same taste. We used disposable 50 ml paper cups without labels and pictures, to prevent confounding our results by other labeling effects.

After product tasting, participants filled out a questionnaire to rate the taste of the tea they had drunk and their purchase intension on 7-point scales. Then, participants reported their Chinese green tea consumption habits in the questionnaire. Participants also revealed their beliefs regarding the relationship between social causes of a product and its taste. They were then asked to complete scales reporting their positive affects items: *enthusiastic, happy, purposeful, and amiable* (Lotz et al., 2013).

In the next part of the questionnaire, participants were asked to report their English proficiency in terms of oral comprehension and production, written comprehension and production (from 1 *Not fluent* to 7 *very fluent*). Then, after answering demographic questions, participants were debriefed and dismissed from the experiment.

3.4. Data analysis

In the present study, we used ANOVA to examine the two main effects and the interaction effect of the Fairtrade logo and a second language on the rating of product taste, as well as the purchase intention. Furthermore, we conducted both multiple regression and bootstrapping analyses to test the mediating effect of positive affects. In addition, we controlled participants' proficiency of English by covariance analysis.

4. Results and discussion

Eight participants failed to pass the Fairtrade logo comprehension check, and were therefore excluded from analyses. In the end, there were 20 participants in the Fairtrade-logo and first-language condition; 15 in the no-Fairtrade-logo and first-language condition; 17 in the Fairtrade-logo and second-language condition; and 14 in the no-Fairtrade-logo and second-language condition. The descriptive statistics are shown in Table 1.

We conducted a 2 (logo: Fairtrade logo vs. No Fairtrade logo) × 2 (language: Chinese vs. English) between-subject ANOVA to test our hypotheses. The main effect of the Fairtrade logo on taste judgment was significant, $F(1,62) = 7.362$, $p = .009$, $\eta_p^2 = .106$. The taste of green tea tagged with the Fairtrade logo was rated significantly better than the product without the Fairtrade logo. There was also a significant main effect of language on taste rating, $F(1,62) = 4.111$, $p = .047$, $\eta_p^2 = .062$. Use of English led to a significantly better reported taste. More importantly, a significant Fairtrade logo × second language interaction was found, $F(1,62) = 6.594$,

Table 1
Mean and standard deviations (in parentheses) of taste evaluations.

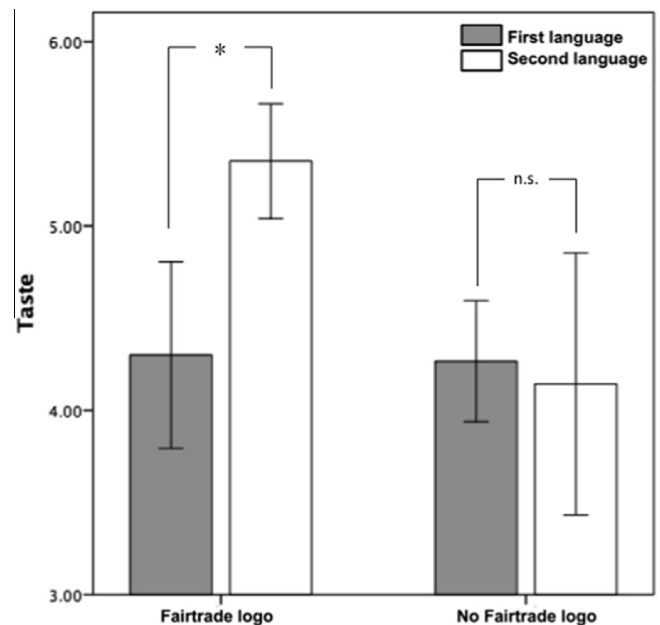|	Fairtrade logo $N = 37$	No Fairtrade logo $N = 29$	Mean
First language $N = 35$	4.30 (1.08)	4.27 (0.59)	4.29 (0.89)
Second language $N = 31$	5.35 (0.61)	4.14 (1.23)	4.81 (1.11)
Mean	4.78 (1.03)	4.21 (0.94)	

Fig. 2. The interaction of logo and language on taste evaluation. Note, * means $p < .05$, n.s. means test is not significant.

p = .013, $\eta_p^2 = .096$, indicating that use of English significantly influenced the effect of the Fairtrade logo on taste evaluation (See Fig. 2). Simple effect analysis showed that when the Fairtrade logo was presented, the average rating of tea taste was significantly higher in the English condition than the Chinese condition, ($M_{Chinese}$ = 4.30, $SD_{Chinese}$ = 1.08; $M_{English}$ = 5.35, $SD_{English}$ = .61), F (1,63) = 10.01, p = .002. However, when no Fairtrade logo was present, there was no significant difference on tea taste rating between the Chinese condition and the English condition, F (1,63) = .08, p = .782. Furthermore, the Fairtrade logo had no significant effect on purchase intention, F (1,64) = .797, p = .38, $\eta_p^2 = .012$.

To test whether the Fairtrade logo effect on taste reporting was mediated by positive affects, we used the traditional multiple regression and the bootstrapping methodology (Preacher & Hayes, 2004). Results of the regression showed that positive affects completely mediated the effect of the Fairtrade logo on taste evaluation (See Fig. 3). As bootstrapping analyses can be applied to small samples with more confidence, we used bootstrapping to confirm our results. Consistent with the regression, bootstrapping analysis (5000 re-samples) revealed a significant indirect effect of the Fairtrade logo on reported taste experience, and this effect was mediated by positive affects, indirect effect = −.2280, 95% CI = [−.5322 − (−.0478)].

Across our sample, only 25.8% of participants believed products related to social causes tasted better than conventional products, 68.2% believed they were identical, while 4.5% believed products with social causes tasted worse. One participant did not report his belief. We examined the Fairtrade logo effect only among participants who claimed products related to social causes tasted the same or worse. It turned out that the Fairtrade logo still had a positive effect on the reported taste of the green tea ($M_{Fairtrade\ logo}$ = 4.86, $SD_{Fairtrade\ logo}$ = .88; $M_{no\ Fairtrade\ logo}$ = 4.33, $SD_{no\ Fairtrade\ logo}$ = .73), F (1,60) = 6.229, p = .015, $\eta_p^2 = .094$. In addition, there was no significant interaction between the Fairtrade logo and their beliefs, F (2,59) = .038, p = .962, $\eta_p^2 = .001$. This shows that participants' expecatation on products may be rather implicit and unconscious.

Because proficiency of a second language might influence its effects on moral judgment (Costa et al., 2014), we controlled participants' English proficiency. The proficiency of English was represented by overall scores on the English skills. As a result, English proficiency did not have a significant effect on taste evaluation, F (1,62) = 1.735, p = .193, $\eta_p^2 = .028$. After controlling English proficiency, there was still a significant interaction of the Fairtrade logo and a second language, F (1,62) = 4.707, p = .034, $\eta_p^2 = .072$. In addition, participants' consumption habits had no effect on the taste evaluation, F (3,62) = .688, p = .056, $\eta_p^2 = .032$.

In summary, mere appearance of the Fairtrade logo, without indicating better physical attributes of the green tea, can significantly influence consumers' reported taste experiences, and this effect is mediated by positive affects. Furthermore, the interaction of the Fairtrade logo and a second language has a significant positive effect on taste evaluation. Only when the Fairtrade logo appeared, participants who were exposed to English rated the tea

taste significantly higher than those exposed to Chinese. These findings consolidate and extend previous research regarding the Fairtrade logo (Lotz et al., 2013). The present study not only indicates that the Fairtrade logo effect can also exist in Chinese products among Chinese consumers, but also innovatively examines the impact of a second language on product taste with a moral consideration.

Whether food and drink products are tasty or not should have only depended on the taste of themselves. However, extensive research has shown that this is not always the case (Piqueras-Fiszman & Spence, 2015). The present study found that information of logo and language can significantly affect our sensory evaluation. According to the assimilation theory of sensory expectation, consumers tend to adjust their perception of products to what they expected to minimize the difference between the two (Cardello, 2007). Especially, exteroceptive cues, which are extrinsic cues stimulated prior to the consumption of food and drink, lead to the majority of expectations about the products (Piqueras-Fiszman & Spence, 2015). They can influence the acceptability, sensory-related judgment, and hedonic appraisal of food and beverage products (e.g. Lee & Yun, 2015). Our findings regarding the Fairtrade logo support the assimilation theory. As an exteroceptive cue, the Fairtrade information causes high expectations of the product. At the same time, as consumers may implicitly link "moral" with "tasty", they tend to unconsciously adjust their taste experience of Fairtrade products to their high expectation of it. Consequently, this lead to a better gustatory sensation of the green tea.

From a cognitive neuroscience perspective, the effect of the Fairtrade logo and a second language on tea taste can be explained by predictive coding (Piqueras-Fiszman & Spence, 2015). It was suggested that our brain uses a hierarchical predictive processing, through which errors in predicting lower-level inputs cause the higher-level models to adapt to and reduce any discrepancy that is detected. We can infer that there might be a slight discrepancy between the real taste of Fairtrade tea and the high expectation caused by information of the Fairtrade logo. As a second language promotes less harsh moral judgment, it may further enlarge the error of prediction. Because of predictive coding, the brain tends to correct the sensory prediction errors by matching the incoming sensory of the product with the high expectation on it. Therefore, interaction of the Fairtrade logo and a second language leads to a significantly higher taste rating of Fairtrade tea than that of normal tea.

There are several limitations in the present research. First, our sample size is relatively small. We suggest future research to employ a larger sample to increase the validity and generalizability of the findings. Second, all our subjects were undergraduate students. As consumer preferences are likely to vary with age and education levels, judgments on products made by undergraduate students might not be representative. In future studies, a more general pool of consumers is needed. Third, our study only used one type of Chinese green tea as the test product. Future studies could use other types of drinks and foods to examine the Fairtrade logo and second language effect. Lastly, we only examined the second language effect on "moral products" in Chinese participants, while whether such effect is cross-culturally applicable remains unknown.

Despite the limitations, our findings are practically valuable. Although Fairtrade products have undergone considerable increases of sales in some European countries (Zander & Hamm, 2010), these products are rather unfamiliar to consumers in China. As the present study indicates a positive effect of the Fairtrade logo among Chinese participants, it suggests the potential of Fairtrade products in Chinese markets. Furthermore, since moral implications can be converted to better product taste, it might be
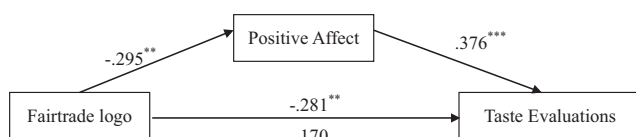

Fig. 3. Results of meditational analysis by causal step regression. The effect of Fairtrade logo on taste evaluations was completely mediated by positive affect. $^*p < .10$, $^{**}p < .05$, $^{***}p < .01$.

beneficial for food companies to make an effort to improve the moral values behind their products. In addition, many imported and exported products would usually translate their logos and package information to the first language of a local market. However, as our study showed that a second language is likely to improve the taste experience of certain moral products, importers and exporters of these products might need to think further about the language translation strategy.

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