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Our Apples Are Healthier Than Your Apples: Deciphering the Healthiness Bias for Domestic and Foreign Products

Justina Gineikiene, Bodo B. Schlegelmilch, and Ruta Ruzeviciute

ABSTRACT

This study extends previous research by exploring perceptions of healthiness in the international food marketplace. To this end, it aims to fill an important gap by shedding light on the role of country of origin in shaping perceptions of healthiness. The authors provide evidence that domestic and foreign food products elicit different perceptions of healthiness. Consumers choose domestic products because they perceive them as healthier and more natural. The effect holds across different samples and product categories (apples, tomatoes, bread, and yogurt). However, this healthiness bias vanishes when products are presented as posing health risks and when products are introduced with a dual identity (i.e., both foreign and domestic). Researching these health-related effects helps provide a better understanding of consumer attitudes toward domestic- versus foreign-made food products.

Keywords: healthiness bias, country of origin, domestic and foreign food

We don't have hormones in our meat, that's banned. But not over there [the United States]. We don't have hundreds of poisons and pesticides that have been proven to be carcinogenic. They do. Their laws, their set-up, their safety regulations are nowhere near ours.

—British celebrity chef Jamie Oliver on the Transatlantic Trade and Investment Partnership agreement with the United States (Corcoran 2014)

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More than eight out of ten Americans (85%) admit to giving some thought to the safety of their foods and beverages over the past year, and 78 percent are very or somewhat confident in the safety of the U.S. food supply. Eighty-two percent of Americans view farmers/producers as doing a good job or better ensuring the safety of their food. About half of Americans (48%) feel that imported foods are less safe than foods produced in the United States. Most of those who feel that imported foods are less safe than domestically-produced foods (77%) attribute that to a lack of regulation. Sixty-one percent believe that imported foods are produced in less sanitary conditions, and sixty percent believe they could become contaminated or spoiled during travel to get to the U.S.

—Findings from the International Food Information Council Foundation's (2012, p. 5) Food & Health Survey

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Many food suppliers include health-related arguments in their communication strategies to appeal to people's health motives (Aschemann-Witzel and Hamm 2010), and advertisers tend to associate local food with such qualities as low sugar or fat content (Tellström, Gustafsson, and Mossberg 2006). The use of health-related arguments by marketers of domestic products suggests that consumers may have certain health-related predispositions toward these products. This raises several important questions for researchers: Do consumers perceive domestic products, particularly food, as healthier and safer than foreign products? How does this perception relate to quality considerations and other well-researched country-of-origin (COO) cues? To date, no studies have addressed these questions. Indeed, we believe that these specific product attributes are related to an overall perception of product healthiness and may provide new insights into extant COO research.

Regarding the numerous studies on COO influence, researchers have long established that consumers' perceptions and inferences about COO affect their beliefs about product quality, purchase intentions, and behavior (for literature reviews, see Peterson and Jolibert 1995; Verlegh and Steenkamp 1999). Studies have provided evidence that purchasing behavior is negatively influenced by consumer ethnocentrism—namely, the “beliefs held by consumers about the appropriateness and indeed morality of purchasing foreign-made products” (e.g., Shimp and Sharma 1987, p. 280; for more recent examples, see Balabanis and Diamantopoulos 2008; Siamagka and Balabanis 2015; Zeugner-Roth, Žabkar, and Diamantopoulos 2015). Previous studies have also provided empirical evidence that consumer affinity (Oberecker, Riefler, and Diamantopoulos 2008), country animosity (Klein, Ettenson, and Morris 1998), and national identification (Verlegh 2007) also matter for domestic or foreign product preferences. Furthermore, a large number of studies have shown that the effect of COO is larger for quality judgments than for attitudes or purchase intentions (Peterson and Jolibert 1995; Verlegh and Steenkamp 1999) and that quality acts as an important mediating variable between COO and purchase behavior (e.g., Klein, Ettenson, and Morris 1998).

However, findings across studies have long pointed to inconsistencies in the research (Samiee 2011), and the processes behind the COO effects are not fully understood (Verlegh and Steenkamp 1999). Recent contributions have not resolved these issues. Indeed, a range of studies have suggested that the degree of COO importance varies by product category (e.g., Balabanis and

Diamantopoulos 2004; Kaynak and Kara 2002; Strizhakova and Coulter 2015) or by specific product attributes (e.g., Juric and Worsley 1998; Krystallis and Chryssochoidis 2009; Supphellen and Rittenburg 2001). In this context, COO effects related to food products constitute a particularly important knowledge gap and are underresearched (e.g., Krystallis and Chryssochoidis 2009; Orth and Firbasova 2003); it remains unclear what forces drive behavior when consumers choose between domestic and foreign food products.

The majority of the extant COO literature is based on the prediction that high evaluations of country image and perceived quality lead to more positive perceptions of foreign products. However, some studies have proposed that food origin cues can influence purchase decisions independently of other cues (Hoffmann 2000; Holdershaw, Gendall, and Case 2013; Loureiro and Umberger 2005), including socially constructed attributes such as being authentic, healthy, and traditional (Dimara and Skuras 2003). Home country product preference can even outweigh rational considerations and cause consumers to disregard quality differences (Orth and Firbasova 2003). Furthermore, Lusk and Briggeman (2009) propose that origin may serve as a proxy for food safety or other attributes such as fairness, tradition, and taste. Although the evidence signals the importance of healthiness perceptions, the phenomenon of the domestic healthiness bias and its potential impact on product purchase has not been systematically researched in the marketing literature. To the best of our knowledge, no previous studies have attempted to disentangle the influence of the healthiness bias on domestic product preferences, even though it may be an important and powerful predictor of consumer behavior regarding domestic versus foreign food products.

In our study, we aim to understand *when* and *how* COO is related to a healthiness bias and perceptions of domestic and foreign food products. More specifically, building on social categorization theory (Turner et al. 1987), we propose that the healthiness bias is a comparative bias and refers to the systematic tendency to evaluate domestic products as healthier than equivalent foreign products. We define “healthy foods” as “usually fresh or minimally processed foods, naturally dense in nutrients, that when eaten in moderation and in combination with other foods, sustain growth, repair and maintain vital processes, promote longevity, reduce disease, and strengthen and maintain the body and its functions” (University of Washington Center for Public Health Nutrition 2013, cited from Rodman et al. 2014). Consumers opt for domestic foods because they consider them healthier, whereas foreign

products are associated with a “foreign = less healthy” notion and are less favored than domestic products. In other words, when deciding between two apples, consumers would prefer domestic over foreign, owing to the belief that their “own” apple is healthier and more natural. Furthermore, we propose that this healthiness bias effect is not a fixed category and may be altered when products are presented as posing health risks. Finally, we intend to provide evidence that the healthiness bias effect vanishes when group boundaries are changed (i.e., when foreign products become associated with a dual identity [out-group and in-group identity]). By recategorizing group boundaries, the evaluations of former out-group products improve and are viewed more positively.

From a theoretical point of view, this study aims to fill an important gap by shedding light on the role of COO in shaping perceptions of healthiness. First, we show that a healthiness bias may be an important and powerful predictor of consumer behavior because domestic and foreign food products elicit different perceptions of healthiness and because consumers are more willing to buy the former. Our research is the first to consider and test the mediating effects of perception of healthiness on willingness to buy domestic and foreign products. Second, we also demonstrate how the healthiness bias may be changed or even switched off by applying insights from social categorization theory. Third, although most COO studies have found that quality cues drive the COO effect, we show that variables beyond quality are also important (e.g., perception of healthiness). Quality has no amplifying or weakening effect on the relationship between COO and perception of healthiness, and this bias is equally prevalent for low- and high-quality products. From a managerial point of view, healthiness bias for domestic products has important implications for public policy makers and marketers. Although there is the extensive marketing communication on the naturalness of domestic food products, it remains unclear how consumers react to such health-related arguments. Researching these health-related effects helps provide a better understanding of consumer attitudes toward domestic- versus foreign-made food products.

THEORETICAL FRAMEWORK AND HYPOTHESES

Categorization, Disease Avoidance, and Perception of Food Healthiness

The theoretical roots of the healthiness bias can be traced to social categorization theory (Turner et al. 1987):

people collectively define themselves in terms of unique characteristics relative to other nongroup member traits and make a distinction between the in-group (“we”) and the out-group (“they”). Categories are not fixed cognitive structures, and people can define themselves at different levels of abstraction (Turner and Reynolds 2011). Categorization leads to polarization, whereby differences between members of the same category become minimized (Turner et al. 1987) and differences between groups become exaggerated (Dovidio, Gaertner, and Saguy 2007). Attributes that differentiate and characterize groups are embodied by prototypes (the typical, central characteristics of objects [Rosch 1975]) or exemplars (representations based on concrete encountered examples [Medin and Schaffer 1978]). People can combine and use both exemplar- and prototype-based categories (Medin, Altom, and Murphy 1984). Categories lead to perceptual depersonalization of the out-group members, who are viewed as cohesive or as sharing the same social identity (Abrams and Hogg 2010).

These general premises of social categorization theoretical framework entail more than just a categorization of people or groups and also can be related to the more specific characteristic of healthiness of food products. For example, Johnson et al. (2011) propose that consumption of unique foods can mark in-group membership, foster in-group cohesion, and help consumers avoid disease by promoting or prohibiting familiar foods. The conceptual link between healthiness and social categorization has been traced to the recent advancement in evolutionary psychology (e.g., Schaller and Neuberg 2012; Schaller and Park 2011; for a literature review see, e.g., Griskevicius and Kenrick 2013). This line of research has generated findings linking specific prejudices directed against in-groups or out-groups to disease-related threats (Faulkner et al. 2004; Navarrete and Fessler 2006; Schaller and Neuberg 2012; Schaller and Park 2011; Terrizzi, Shook, and McDaniel 2013) and has provided additional insights for understanding the healthiness bias for domestic versus foreign products. For example, subjective “foreignness” may imply an increased infection risk (Schaller 2011). Several studies have found that vulnerability to disease enhances negative reactions to foreign people (e.g., Faulkner et al. 2004; Navarrete and Fessler 2006; Navarrete, Fessler, and Eng 2007). Similarly, Peng, Chang, and Zhou’s (2013) results demonstrate that, in response to unfamiliar (vs. familiar) conspecifics, people demonstrate reduced heart rates and faster avoidance behavior. Furthermore, in line with social categorization premises, Terrizzi, Shook, and McDaniel (2013) propose that a disease-avoidance motive encourages

people to exhibit both negativity toward out-group members and positivity toward in-group members. Navarrete and Fessler (2006) provide empirical support for this proposition: vulnerability to disease increases ethnocentric attitudes and is related to in-group attraction.

In line with these findings, we assume that similar motives can be observable for the domestic versus foreign food choice context. More specifically, people create certain abstractions when encountering products. Through a social comparison process, people consider domestic products as part of their in-group and categorize them with the self, whereas foreign products are regarded as belonging to the out-group. This process of social comparison and differentiation leads to intergroup bias (Turner et al. 1987), which is defined as “the systematic tendency to evaluate one’s own membership group (the in-group) or its members more favorably than a non-membership group (the out-group) or its members” (Dovidio et al. 2010, p. 3). Because disease threats can enhance biases related to in-groups or out-groups, it is likely that the formation of health-related biases follows the same categorization paths as social categorization in general. More specifically, we expect that through a social comparison process, consumers interpret healthiness as one of the characteristics of products. Because domestic products are viewed as belonging to the self, people tend to identify more with domestic products than foreign products. Thus, the healthiness bias is a comparative bias, and by thinking about the healthiness of domestic products, people, to some extent, reflect on the self and tend to evaluate these products more positively and as healthier. Early social identity theorists have observed this positive distinctiveness effect. For example, Tajfel (1978) finds that because the self is implicated in the group, people are motivated to view their group as positively distinct from other groups.

Furthermore, social categorization theory and disease-avoidance-motive literature complement each other. Social categorization demonstrates the process of bias formation—that is, how people categorize and reflect when encountering domestic versus foreign food products. In contrast, the literature on disease avoidance reveals more specific reasoning as to why positivity toward the in-group members and negativity toward the out-group members can be related to the perception of healthiness. Bearing in mind that previous research has established connections between identification with in-groups/out-groups and disease avoidance, we also expect that similar linkages are reflected in the perception of

healthiness of food products. Therefore, in the following sections, we concentrate on exploring how social categorization works in explaining people’s perceptions of healthiness of food products.

As a final theoretical remark, it is important to make a distinction between the healthiness bias and the theoretically similar concept of consumer ethnocentrism (Shimp and Sharma 1987). Consumer ethnocentrism is driven by consumers’ economic concerns (Shimp and Sharma 1987), but these concerns are not the sole motivator of home country bias (Verlegh 2007). In contrast to consumer ethnocentrism, the healthiness bias depends on motivation to achieve positive distinctiveness and is expressed as a tendency to evaluate domestic product healthiness more favorably than foreign products. In other words, healthiness bias occurs because people perceive domestic products as belonging to their own group (self-association leading to positive distinctiveness), whereas consumer ethnocentrism is a result of a willingness to protect the domestic economy (lack of willingness to buy foreign because of moral reasons). Thus, consumers who score high on healthiness bias may not necessarily also score high on consumer ethnocentrism.

Food Origin and Perception of Healthiness

As a result of the healthiness bias, consumers associate their own domestic food products with healthiness, whereas foreign-made products are placed into the category of “less healthy” and their healthiness is denigrated. Although studies disentangling health-related concerns for domestic and foreign food are scarce, related research areas have garnered some insights. In general, researchers interested in food decision making have found that sensory appeal, health, convenience, and price are the most important factors related to food choice (e.g., Steptoe, Pollard, and Wardle 1995). Consumers may base their inferences about food on such core beliefs as being “good for one’s health” (Carpenter and Larceneux 2008), and health concerns may influence eating and drinking habits (Filippaios and Rama 2011). Loureiro and Umberger (2005), for example, show that U.S. consumers believe U.S. beef to be safer than foreign beef. Similarly, Gehrt et al. (2005) propose that Japanese consumers have unfounded concerns regarding the healthiness of U.S. fruit in terms of organic growing methods, the freshness of the fruit, and absence of chemical residue. Likewise, Swedish consumers use COO as a quality cue for meat purchases and associate this cue with better animal welfare considerations, a prohibition of antibiotics in animal feed, and a salmonella control program (Hoffmann 2000).

Furthermore, companies expanding an international presence aim to develop products suited to local tastes, and success may be granted by stressing the food's fresh ingredients (Craig and Douglas 1996). Given that previous studies have also found that disease-related concerns enhance negative reactions to foreignness (e.g., Faulkner et al. 2004; Navarrete and Fessler 2006; Navarrete, Fessler, and Eng 2007) and spur people to avoid food of foreign origin (Li et al. [2012, cited from Griskevicius and Kenrick 2013]), we hypothesize the following:

H₁: Consumers perceive domestic food products as healthier than equivalent foreign food products.

Food Origin, Healthiness, and Purchase Intentions

Although studies examining health-related reasons as to why consumers prefer domestic food products over foreign are virtually nonexistent, health-related behavior researchers have observed a similar phenomenon while studying locally grown food. For example, Costanigro et al. (2011) find that the perceived value of local apples surpasses that of organic apples in general, and consumers are willing to pay five times more for local than for organic apples. Other researchers have obtained related findings: consumers are willing to pay higher prices for locally grown potatoes compared with organic potatoes free of genetically modified organisms (Loureiro and Hine 2002); this is also the case for locally grown melons compared with melons with a health claim ("vitamin-C enhanced"; Bond et al. 2008). Similarly, Kavak and Gumusluoglu (2007) show that the intention to purchase domestic food is related to dimensions such as cost consciousness, health consciousness, and craftsmanship. Griskevicius and Kenrick (2013) also propose that a disease-avoidance motive might lead people to pay more for products that are made domestically rather than in foreign countries. Theoretically, healthiness bias occurs through a social comparison process and refers to the systematic tendency to evaluate domestic products as healthier than equivalent foreign products. Domestic products are viewed as belonging to the self, and by encountering them, people reflect on the self and tend to evaluate the products as healthier. Furthermore, it has been well established in the literature that attitudes mediate the relationship between beliefs and intentions (Ajzen 1991). In line with these findings, we hypothesize the following:

H₂: Perceived healthiness mediates the relationship of food origin to willingness to buy.

Moderating Effects of Quality

It is well documented in COO literature that product quality judgment acts as an important predictor of willingness to buy foreign or domestic products (e.g., Özsomer 2012; Strizhakova and Coulter 2015; Xie, Batra, and Peng 2015). Most COO studies have found that perception of quality drives the COO effect and acts as a mediating variable among origin and purchase behavior (for a review, see, e.g., Verlegh and Steenkamp 1999). However, there may be a wide variation in the strategic functions served by moderators and, at some stages of research, a mediation approach may be substituted by moderator-type interventions (Baron and Kenny 1986). Therefore, we would like to extend previous studies' findings by testing moderating effects of quality on the perception of healthiness. In contrast to extant literature, we do not test the intermediary role of quality but rather aim to understand how quality considerations can alter the healthiness bias. We intend to reveal the process of healthiness bias formation and whether this bias is also equally prevalent for different- (low- and high-) quality products (when bias is present). Furthermore, although quality and healthiness could be related, conceptually these are two distinct constructs. Products can be of high quality, but not healthy (e.g., premium potato chips, Honeycrisp apples sprayed with chemicals for overseas transportation, high-quality frozen meals). Healthier food refers to food that is fresh or minimally processed, naturally dense in nutrients, and beneficial for the body (University of Washington Center for Public Health Nutrition 2013, cited from Rodman et al. 2014). In contrast, product quality judgment relates to consumers' broader positive attitude toward product attributes such as workmanship, suitability, reliability, competitiveness, technological advancement, and so on (Darling and Wood 1990).

Therefore, we would like to test whether including quality as a moderator changes the mediating effects of perception of healthiness. In other words, do people regard domestic products as healthier, and does this relate to a higher willingness to buy when the products are presented as high quality versus low quality? We expect that moderating effects of quality will be pronounced only under a high quality condition. Because a substantial amount of previous literature has confirmed (see, e.g., Klein, Ettenson, and Morris 1998; Verlegh and Steenkamp 1999) that quality is an important factor for foreign and domestic product purchases, we hypothesize the following:

H₃: Product quality perceptions moderate the mediating effects of perception of healthiness on willingness to buy domestic or foreign food

products. This effect is observed only when considering high-quality food products.

Health Benefits, Disease Risks, and Perception of Healthiness

Previous studies have found that out-group bias and stereotyping occurs as a result of a homogeneity effect (e.g., Judd and Park 1988; Quattrone and Jones 1980). This effect is defined as the tendency to view members of out-groups as more homogeneous to each other than to members of the in-group (Baron, Byrne, and Branscombe 2006; Quattrone and Jones 1980). Members of the out-group are lumped together and viewed as more or less the same in values, personality traits, and characteristics. In-group members, however, are perceived as having a greater variance in terms of their own personalities and characteristics. This effect is revealed in the variability of judgments and perceptions (e.g., Park and Judd 1990). Some studies have found that increasing the perceived variability of the out-group decreases prejudice and discrimination (Brauer and Er-rafiy 2011). Perceived variability leads to a more complex representation of the target group (Ostrom et al. 1993). Heterogeneity implies that all members are not equally dislikeable and group membership becomes less important in guiding behavior (Brauer and Er-rafiy 2011). In line with out-group homogeneity theory, we expect that by changing the positive perception of domestic product characteristics and the negative perception of foreign product characteristics, the mediating effects of the perception of healthiness can also be altered. If domestic and foreign products are presented in a more positive light (health-benefits prime), the mediating effect of the healthiness perception should be removed. Similarly, when foreign and domestic products are presented in a negative light (disease-risk prime), the healthiness bias mediating effect should vanish, because domestic products will now be perceived as less healthy. Previous literature has used many measures of perceived variability of a group; variability can be viewed in two ways: (1) as the perceived dispersion of group members from the group's central tendency and (2) as the extent to which the group is viewed as fitting the group stereotype (Park and Judd 1990). In our case, we deal with the extent to which people perceive domestic products as stereotypically "healthy" and foreign products as stereotypically "unhealthy." In other words, we expect that a different presentation will reduce the notion that "all domestic products are alike" and "all foreign products are alike." In summary, we expect that a positive health-benefits scenario will change the negative perception of foreign products, whereas a negative-disease risks scenario will

change the positive perception of domestic products. Therefore, we hypothesize the following:

H₄: Health-benefits primes and disease-risks primes moderate the mediating effects of perception of healthiness on willingness to buy domestic or foreign food products.

Dual Identity and Healthiness Perception

Categories may have "fuzzy" boundaries (Rosch 1978), and social categorization is a dynamic process that depends on social context (Dovidio, Gaertner, and Saguy 2007). Bias can be systematically altered by redefining the perception of group boundaries (Gaertner et al. 1993). In-group and out-group members who are induced to view themselves as a single group rather than as two completely separate groups have improved attitudes and behavior toward each other. Stronger perceptions of a common identity predict more positive intergroup attitudes (Dovidio, Gaertner, and Saguy 2009) and increase cooperation (Gaertner et al. 1990) and positive affect (Dovidio, Gaertner, and Loux 2000). The bias can effectively be reduced by giving the original in-group and out-group members a dual identity as both part of the common group and part of the (previously) separate group (Gaertner et al. 1989). Following this logic, we propose that the healthiness bias may be altered if consumers encounter a foreign product that is assigned a dual-identity association. Dual-identity associations refer to products that have both a foreign and a domestic origin. Thus, a product that has both domestic and foreign origin associations will be regarded in a more positive light and preferred more. Therefore, we expect the following:

H₅: The healthiness bias vanishes for foreign products with a dual-identity association compared with domestic products.

STUDIES

We conducted four studies in two countries (Switzerland and Lithuania), with different products as stimuli (tomatoes, yogurt, apples, and bread). In Study 1, we test the initial hypothesis on the differences of perception of healthiness of the same domestic versus foreign product. In Study 2, we aim to understand how the perception of healthiness is related to preference formation for foreign and domestic food products. Using a 2 (domestic vs. foreign) × 2 (high quality vs. low quality) between-subjects

design, we also test how quality perceptions may alter this relationship. Furthermore, in Study 3, we explore how presenting products in a negative or positive light alters the healthiness bias. We employ a 3 (domestic vs. foreign vs. control) \times 2 (health-benefits vs. disease-risks scenario) between-subjects design and compare how a different presentation alters the healthiness bias. Finally, in Study 4, we test the boundary conditions by introducing products associated with a dual identity. The assumption of this study is that by associating products with a dual identity, the healthiness bias can be removed.

Pilot Study

To initially explore whether the healthiness bias is present, we designed a pilot study. Using a convenience sample, we recruited participants online (94 participants from Lithuania; mean age = 38.44 years, SD = 10.85; 59% female). Participants were provided with a photo of apples and were asked to indicate how foreign or domestic these apples looked to them (on a seven-point scale; 1 = “foreign,” and 7 = “Lithuanian”). Next, we asked participants to indicate how healthy and natural these apples looked (on a seven-point scale; 1 = “unhealthy/unnatural,” and 7 = “healthy/natural”). We found significant correlations among the perception of healthiness and the perceived origin of the product. The more Lithuanian the apples looked, the healthier ($r = .49, p < .01$) and more natural ($r = .49, p < .01$) participants perceived them to be. The pilot study results provided initial evidence that domestic products might be perceived as healthier and that the healthiness bias effect should be explored further.

Study 1

Study 1 serves as an initial test of the hypothesis that people perceive domestic food as healthier. In particular, it shows that consumers perceive their own (i.e., domestic) food products as healthier and more natural compared with the same foreign products.

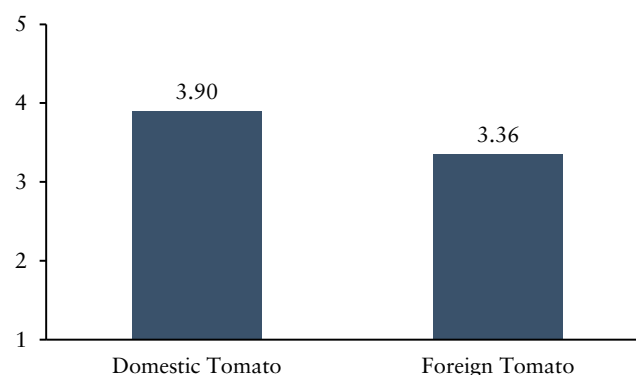
Method and Measures. We used a convenience sample, recruited participants online, and randomly assigned them to one of two experimental groups: (1) foreign (Spanish) tomatoes or (2) domestic tomatoes. The sample consisted of 130 participants (mean age = 30 years; 50% female) who lived in 22 countries (Switzerland = 28%, Germany = 27%, Lithuania = 8%, Italy = 5%, Liechtenstein = 5%, New Zealand = 4%, Russia and other = 3%). We ensured that none of the participants came from Spain. We chose tomatoes as a product category for several reasons.

First, this category enabled us to avoid using real brand names in experimental conditions. Second, they are widely used, affordable, and one of the most popular vegetables in the daily intake of any nationality. We chose Spain as a foreign manufacturing country because it was well-known among our sample and is Europe’s top tomato-producing country (based on FAOSTAT [2011] data). Thus, we assumed that our participants would be familiar with tomatoes from Spain. The stimuli included verbal descriptions (“Domestic [Spanish] tomato”) and a pictorial representation, which is consistent with prior research (e.g., Chernev and Gal 2010). For the domestic condition, we first asked the respondents to indicate their COO, which later automatically appeared in a domestic product description (i.e., Italians received a description of Italian tomatoes, whereas Russians received a description of Russian tomatoes, etc.). We measured the perceived healthiness using three items on a five-point Likert scale adapted from Homer (2006; “healthy,” “natural,” and “nutritious”; $\alpha = .90$).

Results. We hypothesized that consumers perceive domestic food products as healthier than equivalent foreign food products. In line with this proposition, our data show that participants rated domestic tomatoes as healthier than foreign tomatoes ($M_{\text{domestic}} = 3.90, SD = 1.00$; $M_{\text{foreign}} = 3.36, SD = .93$; $F(1, 128) = 10.03, p < .002, \eta^2 = .07$; see Figure 1).

Discussion. The findings support H_1 by providing initial evidence to the proposition that consumers tend to perceive domestic food products as healthier than foreign

Figure 1. Perception of Healthiness of Domestic and Spanish Tomatoes



Notes: Participants rated their perception of healthiness of tomatoes on a five-point Likert scale.

food products. However, this study is based on only one specific foreign COO for the foreign product, and an alternative explanation might be that healthiness is dependent on the specific image of the country in question (i.e., Spain). For example, a healthiness bias might be present only in the case of a negative foreign country image and low quality of foreign food products. To rule out this alternative explanation, we designed Studies 2, 3, and 4, which considered only foreign countries that have a favorable country image.

Study 2

With Study 2, we aim to extend the findings of Study 1 by testing how the perception of healthiness is related to the willingness to buy domestic and foreign products. More specifically, we test the mediating effects of perception of healthiness on the willingness to buy different-origin food products. Next, by manipulating perceived quality of both domestic and foreign products, we explore how quality is related to the perception of healthiness.

Method and Measures. We used an online panel administered by a professional research agency to recruit participants and employed a 2 (high quality vs. low quality) \times 2 (Lithuania as domestic country vs. Germany as foreign country) between-subjects factorial design. We randomly assigned 201 participants (mean age = 42 years, SD = 14.06; 53% female) from Lithuania to one of four experimental conditions. We chose apples as a product category for the reasons outlined in Study 1 (we were able to avoid using real brand names, participants were likely to be familiar with the product class, and apples have a wide range of possible COOs). Previous literature has provided evidence that foreign product preferences may be explained by a(n) (un)favorable COO image (e.g., Verlegh and Steenkamp 1999). To eliminate this alternative explanation, which was also a limitation of Study 1, we included Germany as a foreign country, because Lithuanian consumers are familiar with apples originating from this country and because Germany has a positive COO image. We used Roth and Romeo's (1992) country image scale in a separate pretest ($N = 85$) and confirmed that Germany has a significantly more favorable country image than Lithuania ($M_{\text{Germany}} = 5.60$ vs. $M_{\text{Lithuania}} = 4.74$; $t(84) = 6.34$, $p < .001$; $\alpha = .88$ and $\alpha = .82$, respectively).

At the beginning of the study, participants were presented with a deceptive cover story informing them that the state regulatory authority was investigating how consumers react to different news stories and how they choose

between products. The participants then read a short article stating that Lithuanian [German] apples are increasingly improving [losing] their position in the market for quality-related reasons (full scenarios of all experiments are available from the authors on request). After reading this article, participants were asked several questions about the apples mentioned in the article. Afterward, they were provided with the second part of the questionnaire, which measured additional control variables and individual consumer characteristics. Participants also responded to questions about the realism of the experimental treatments. After completing the questionnaire, participants were asked to speculate about the general purpose of the study, and none of them indicated suspiciousness. Afterward, participants were debriefed about the aim of the experiment.

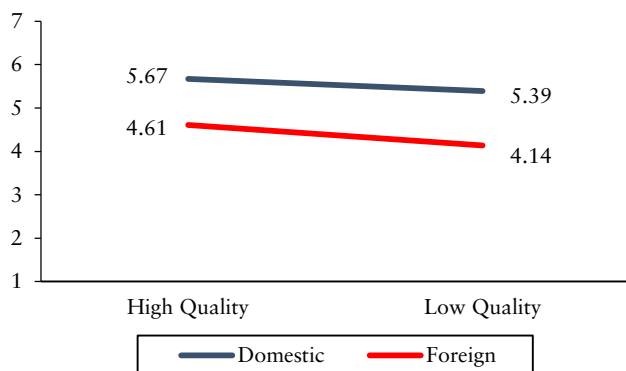
We measured perceived healthiness using a four-item, seven-point Likert scale adapted from Homer (2006; "healthy," "natural," "genuine," and "without additives"; $\alpha = .89$). We estimated purchase intention with a three-item scale adapted from Taylor and Bearden (2002; example item: "I have the intention of buying these apples"; $\alpha = .96$). Drawing from the literature, we identified several additional control variables and tested their impact on perception of healthiness and willingness to buy. These variables were consumer ethnocentrism (Klein, Ettenson, and Morris 1998; Shimp and Sharma 1987), national identity (Verlegh 2007), health consciousness (Mai and Hoffmann 2012; Gould 1988), experience with the COO (measured as visits to Germany [based on Koschate-Fischer, Diamantopoulos, and Oldenkotte 2012]), product experience (Alba and Hutchinson 1987), and sociodemographic variables (age, gender, and income). We included control variables in our analyses by adding one control variable at a time. Our results indicate that none of these control variables had a significant impact on the perception of healthiness and willingness to buy. Consequently, we do not retain them as covariates in the subsequent analysis. We conducted a manipulation check to confirm the effectiveness of the manipulation by asking the participants to rate the apples' quality on a seven-point scale. As we intended, participants who viewed the low-quality-apples scenario rated them as having worse quality than those who viewed the high-quality scenario ($M_{\text{high}} = 5.51$, $SD = 1.29$; $M_{\text{low}} = 3.86$, $SD = 1.78$; $F(1, 199) = 55.65$, $p < .001$).

Results. We hypothesized that (1) the relationship of food origin to willingness to buy is mediated by perceived healthiness and (2) the mediating effects of perceived healthiness on willingness to buy domestic or foreign food

products is moderated by product quality perceptions, such that the impact of healthiness perceptions on willingness to buy is stronger when such quality is high (vs. low). To test these predictions, we ran a multivariate analysis of variance (MANOVA) with COO and quality as factors and perception of healthiness and willingness to buy as dependent variables. Using Pillai's trace, we found a significant effect of origin ($V = .19$, $F(2, 200) = 23.55$, $p < .001$) and quality ($V = .15$, $F(2, 200) = 17.49$, $p < .001$) on perception of healthiness and willingness to buy. Next, univariate tests revealed significant main effects for COO on perception of healthiness ($F(1, 201) = 34.94$, $p < .001$, $\eta^2 = .15$). In contrast, we observed no influence of quality ($F(1, 201) = 3.34$, $p > .05$, $\eta^2 = .02$) on the perception of healthiness. Further analysis revealed a main effect of origin ($F(1, 201) = 43.57$, $p < .001$, $\eta^2 = .18$) and quality ($F(1, 201) = 28.37$, $p < .001$, $\eta^2 = .13$) on willingness to buy. In the high-quality condition, domestic apples were perceived as healthier than foreign apples ($M_{\text{high-quality domestic}} = 5.67$, $SD = 1.06$; $M_{\text{high-quality foreign}} = 4.61$, $SD = 1.45$), and respondents were more willing to buy domestic apples ($M_{\text{high-quality domestic}} = 5.78$, $SD = 1.19$; $M_{\text{high-quality foreign}} = 4.21$, $SD = 1.64$). The same pattern emerged in the low-quality condition (perceived healthiness: $M_{\text{low-quality domestic}} = 5.39$, $SD = 1.42$; $M_{\text{low-quality foreign}} = 4.14$, $SD = 1.59$; willingness to buy: $M_{\text{low-quality domestic}} = 4.47$, $SD = 1.69$; $M_{\text{low-quality foreign}} = 3.11$, $SD = 1.72$) (see Figures 2 and 3).

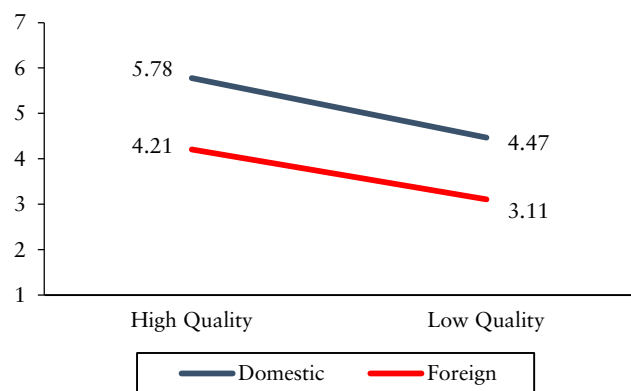
Moderated Mediation Analysis. Findings so far indicate that people perceive domestic foods as healthier and are

Figure 2. Perception of Healthiness of Domestic and Foreign Apples



Notes: Participants rated their perception of healthiness of apples on a seven-point Likert scale.

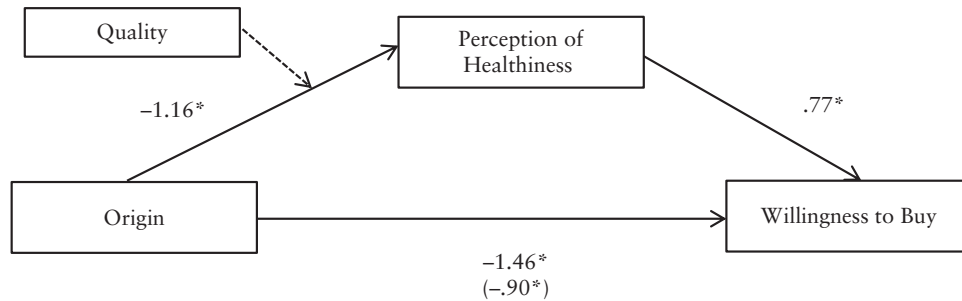
Figure 3. Willingness to Buy Domestic and Foreign Apples



Notes: Participants rated their willingness to buy apples on a seven-point Likert scale.

more willing to buy them. Next, we explored how COO, quality, and healthiness perceptions are related to willingness to buy and tested these relationships in one model using a regression-based approach. In other words, we expected that the perceived healthiness of domestic or foreign products mediates people's willingness to buy these products. Figure 4 depicts a visual representation of the moderated mediation model. Using Hayes' (2012) PROCESS macro with 1,000 bootstrapped samples, we observed that COO predicted perception of healthiness (path a: $B = -1.16$, $SE = .20$, 95% confidence interval [CI] = [-1.56, -.77]). Furthermore, perception of healthiness predicted willingness to buy (path b: $B = .77$, $SE = .07$, 95% CI = [.64, .89]). Next, the total effect of COO on willingness to buy, without consideration of the mediating role of perception of healthiness, was significant (path c: $B = -1.46$, $SE = .24$, 95% CI = [-1.93, -.99]). The indirect effect of COO on willingness to buy through perceived healthiness was qualified by a 95% bootstrap confidence interval that did not include zero, thus yielding a significant effect (path c': $B = -.90$, $SE = .17$, 95% CI = [-1.25, -.58]). Therefore, we conclude that perception of healthiness is a mediator of the relationship between COO and willingness to buy. Next, we tested whether quality can moderate the relationship between COO and willingness to buy through the healthiness perception. When the quality of the product was low, the mediation model was significant (indirect effect = $-.82$; $SE = .21$, 95% CI = [-1.25, -.43]). We obtained the same pattern for high-quality products (indirect effect = $.96$; $SE = .24$, 95% CI = [-1.45, -.51]). Thus, the healthiness

Figure 4. Perception of Healthiness Mediating Effects of the Relationship Between COO and Willingness to Buy



* $p < .05$.

Notes: Unstandardized coefficients are reported.

perception mediates the relationship between COO and willingness to buy, and these relationships are NOT moderated by the perceived quality of the products.

Discussion. In Study 2, we show that the perception of healthiness is related to willingness to buy domestic and foreign products. The study provides further evidence of the prevalence of the healthiness bias for domestic food products. Participants perceive domestic food as healthier than foreign food. In this study, we replicated the healthiness effect under a different condition—namely, for a foreign country with a positive country image. Even when a foreign country has a better overall country image, food products have a default perception of healthiness, and this perception is in favor of domestic food. The perception of healthiness mediates the relationship between COO and willingness to buy. In other words, domestic country food products are perceived as healthier, and therefore, people are more willing to buy them, in support of H_2 . Moreover, in contrast to our expectations, the products' perceived quality does not moderate the relationships between COO and willingness to buy through the healthiness perception. The finding that the indirect effect is unmoderated attests to the robustness of the effect: it is not a function of product quality; consequently, product quality can be ruled out as an alternate explanation of our effects. Thus, the perception of healthiness acts independently of quality considerations, and domestic food products are chronically perceived as healthier than foreign. These findings reject H_3 .

Study 3

Study 3 aims to extend the findings by testing how a different presentation alters the healthiness bias. Specifically, we employ a 3 (domestic vs. foreign vs. control) \times 2

(health benefits vs. disease prime) between-subjects design and test whether presenting a product in a negative or positive light will equally decrease the healthiness bias for products and people's willingness to buy domestic versus foreign food.

Method and Measures. We used an online panel administered by a professional research agency to recruit participants and employed a 3 (Lithuania [domestic country] vs. France [foreign country] vs. control [no COO] condition) \times 2 (health-benefits prime vs. disease-risks prime) between-subjects factorial design. We randomly assigned 209 Lithuanian participants (mean age = 42 years; 61% female) to one of the six experimental conditions. We chose yogurt as a product category because of participants' high familiarity with the product class and the range of possible COOs for yogurt. We excluded from the survey participants who indicated that they did not consume yogurt. We included France in the analysis because yogurt brands from this country are familiar to Lithuanian consumers and because France has a positive COO image. We used Roth and Romeo's (1992) country image scale in a separate pretest ($N = 85$) and confirmed that France has a significantly more favorable country image than the domestic country (Lithuania) ($M_{\text{France}} = 5.49$, $SD = 1.02$ vs. $M_{\text{Lithuania}} = 4.48$, $SD = 1.14$; $t(48) = 3.75$, $p < .001$; $\alpha = .92$ and $\alpha = .82$, respectively) and the other two main yogurt-importing countries (Estonia and Poland; $M_{\text{Estonia}} = 5.01$, $SD = 1.13$; $M_{\text{Poland}} = 3.96$, $SD = 1.34$).

We used the same study design as in Study 2. Participants were presented with a deceptive cover story (for similar procedures, see Faulkner et al. 2004) informing them that the state regulatory authority had announced the results

of a recent investigation into yogurt healthiness. Lithuanian (French/no origin indicated) yogurts are beneficial (harmful). Yogurt intake helps strengthen the immune and digestive systems as well as prevents osteoporosis (unbalances the digestive system/increases obesity risk and the aging process).

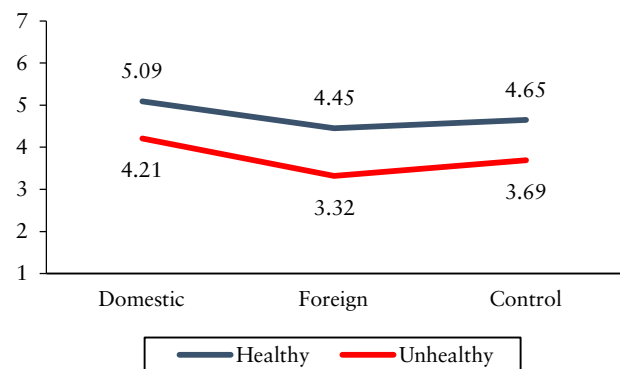
We measured perceived healthiness using four items on a seven-point Likert-scale adapted from Homer (2006; “healthy,” “natural,” “genuine,” and “made without additives”; $\alpha = .89$). We estimated purchase intention by using a seven-point scale adapted from Taylor and Bearden (2002; example item: “I have the intention of buying this yogurt”; $\alpha = .94$). In addition, we included the same control variables identified in Study 2 (i.e., consumer ethnocentrism, national identification, health consciousness, experience with the COO, product experience, and sociodemographic variables). Our results indicate that health consciousness ($p < .05$) and experience with the product category ($p < .001$) had a significant impact on perception of healthiness and willingness to buy; therefore, we retained these constructs as covariates in the subsequent analysis. We conducted a manipulation check by asking the participants to rate the yogurt’s healthiness on a seven-point scale. As we intended, participants who were presented with the scenario describing the disease risks posed by yogurt rated it as less healthy than those who viewed the scenario extolling yogurt’s health benefits ($M_{\text{benefits}} = 5.07$, $SD = 1.66$; $M_{\text{risks}} = 3.86$, $SD = 1.95$; $F(1, 207) = 23.07$, $p < .001$).

Results. We hypothesized that health-benefits and disease-risks primes moderate the mediating effects of perception of healthiness on willingness to buy domestic or foreign food products. To test these predictions, we ran a MANOVA with COO and health-benefits/disease-risks scenarios as factors and perception of healthiness and willingness to buy as dependent variables. Using Pillai’s trace, we found a significant effect of origin ($V = .13$, $F(2, 202) = 23.55$, $p < .001$) and scenario ($V = .13$, $F(4, 406) = 7.15$, $p < .001$) on perception of healthiness and willingness to buy. Next, univariate tests revealed significant main effects of both COO ($F(2, 203) = 4.11$, $p < .05$, $\eta^2 = .04$) and scenario ($F(1, 203) = 21.46$, $p < .001$, $\eta^2 = .10$) on perceived healthiness. The main effects of origin ($F(2, 203) = 11.85$, $p < .001$, $\eta^2 = .11$) and scenario ($F(1, 203) = 22.80$, $p < .001$, $\eta^2 = .10$) emerged for willingness to buy. Consumers perceived the yogurt presented in the health-benefits scenario as significantly healthier ($M_{\text{benefits}} = 4.71$, $SD = 1.48$; $M_{\text{risks}} = 3.76$, $SD = 1.62$) and were also more willing to buy it ($M_{\text{benefits}} = 4.97$, $SD = 1.59$; $M_{\text{risks}} = 3.90$, $SD = 1.76$). Regardless of

the scenario, domestic products were chronically perceived to be healthier. Participants perceived domestic yogurt as healthier in both the health-benefits scenario ($M_{\text{domestic}} = 5.09$, $SD = 1.20$; $M_{\text{foreign}} = 4.45$, $SD = 1.61$; $M_{\text{control}} = 4.65$, $SD = 1.53$) and the disease-risks scenario ($M_{\text{domestic}} = 4.21$, $SD = 1.67$; $M_{\text{foreign}} = 3.32$, $SD = 1.55$; $M_{\text{control}} = 3.69$, $SD = 1.55$). Willingness to buy was also more pronounced for the domestic yogurt than foreign yogurt (health-benefits scenario: $M_{\text{domestic}} = 5.37$, $SD = 1.31$; $M_{\text{foreign}} = 4.11$, $SD = 1.69$; $M_{\text{control}} = 5.37$, $SD = 1.44$; disease-risks scenario: $M_{\text{domestic}} = 4.38$, $SD = 1.64$; $M_{\text{foreign}} = 3.17$, $SD = 1.57$; $M_{\text{control}} = 4.11$, $SD = 1.89$). We did not observe an interaction effect between the COO and primes on either the perception of the yogurt’s healthiness or willingness to buy it (see Figures 5 and 6).

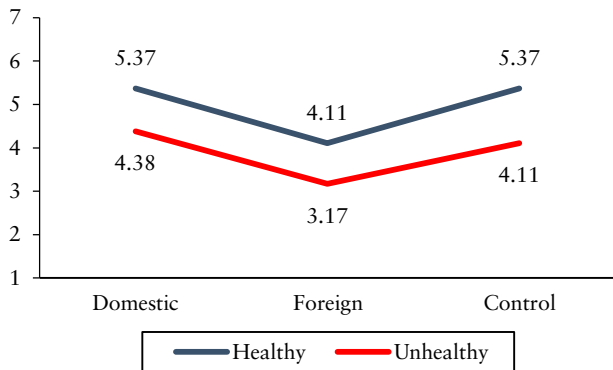
Moderated Mediation Analysis. We explored how COO, health-benefits/disease-risks perception, and perceptions of healthiness are related to willingness to buy. In other words, we expected that willingness to buy domestic or foreign products is mediated by the healthiness perception of these products. Figure 7 depicts a visual representation of the moderated mediation model. Using Hayes’ (2012) PROCESS macro with 1,000 bootstrapped samples, we observed that COO predicts the perception of healthiness (path a: $B = -.71$, $SE = .28$, $95\% \text{ CI} = [-1.26, -.15]$). Furthermore, the perception of healthiness predicted willingness to buy (path b: $B = .75$, $SE = .07$, $95\% \text{ CI} = [.62, .88]$). Next, the total effect of COO on willingness to buy, without taking into consideration the mediating role of perception of healthiness, was significant (path c:

Figure 5. Perception of Healthiness of Domestic and Foreign Yogurt



Notes: Participants rated their perception of healthiness of yogurt on a seven-point Likert scale.

Figure 6. Willingness to Buy Domestic and Foreign Yogurt



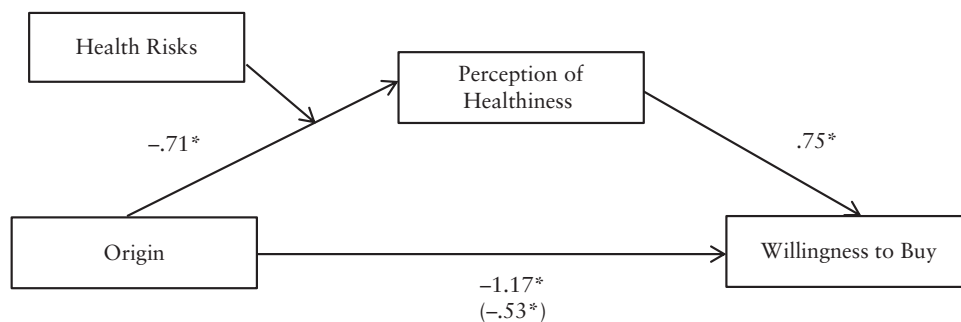
Notes: Participants rated their willingness to buy yogurt on a seven-point Likert scale.

$B = -1.17$, $SE = .29$, $95\% \text{ CI} = [-1.74, -.60]$). The indirect effect of COO on willingness to buy through perceived healthiness was also significant (path c' : $B = -.53$, $SE = .21$, $95\% \text{ CI} = [-.93, -.12]$). Therefore, we conclude that perception of healthiness is a mediator of the relationship between COO and willingness to buy. Next, we tested how primes related to different health benefits/disease risks can moderate the relationship between origin and willingness to buy through the perception of healthiness. When products were presented as providing health benefits, the mediated model remained significant (indirect effect = $-.67$; $SE = .27$, $95\% \text{ CI} = [-1.22, -.17]$). However, when

products were presented as posing a disease risk, the mediating effect of healthiness was nonsignificant (indirect effect = $-.48$; $SE = .28$, $95\% \text{ CI} = [-.99, .56]$). Thus, COO's relationship to willingness to buy is mediated through perceived healthiness only when products are presented as having health benefits. For products presented with a disease risk, this indirect relationship becomes nonsignificant.

Discussion. Study 3 provides boundary condition evidence on the prevalence of healthiness bias for domestic food products. We replicate the findings of Study 2 by showing that participants perceive domestic food as healthier than foreign food and that perception of healthiness is a mediator of the relationship between COO and willingness to buy. However, when products are presented as having disease risks, the mediating effect of perception of healthiness becomes nonsignificant, which partly supports H_4 . An interpretation of this finding is that if domestic and foreign products are presented in a more positive light (as providing health benefits), healthiness bias exists and domestic products are still viewed as healthier than foreign products. Claiming that a foreign product is also "healthy" does not diminish the indirect mediating effect of perception of healthiness. However, when products are presented as having a disease risk, the healthiness bias mediating effect disappears. In summary, the mediating effects of perception of healthiness persist when people are presented with products' health benefits and vanish when people are presented with a possible risk of disease associated with the consumption of products.

Figure 7. Perception of Healthiness Mediating Effects of the Relationship Between Country-of-Origin and Willingness to Buy



* $p < .05$.
 Notes: Unstandardized coefficients are reported.

Figure 8. Perception of Healthiness of Domestic and Foreign Bread



Notes: Participants rated their perception of healthiness of bread on a seven-point Likert scale.

Study 4

Study 4 aims to provide a deeper understanding of the healthiness bias effect. We test whether a product's re-categorization of identity association changes people's perceptions of healthiness and willingness to buy domestic versus foreign food products. We test how consumers perceive products that have both a domestic- and a foreign-origin association. We expect that introducing products with dual-identity associations (foreign and domestic) will eliminate the healthiness bias.

Method and Measures. We used an online convenience sample to recruit participants. We randomly assigned 127 participants (mean age = 39.01 years, SD = 11.79; 61.5% female) from Lithuania to one of four experimental conditions. We compared domestic (Lithuanian) and foreign (German) products and chose bread as a product category for similar reasons as in our previous studies (participants were familiar with the product class and there are a wide range of possible COOs of breads). We included Germany as a foreign country in the analysis because Lithuanian consumers are familiar with bread from this country and because Germany has a positive COO image. We manipulated identity by changing the bread origin and manufacturing recipe. In the domestic condition, we had domestic bread manufactured from a domestic recipe; in the foreign condition, we had foreign bread manufactured from a foreign recipe. The dual-identity condition represented foreign (German) bread manufactured from a domestic (Lithuanian) recipe. We

also included a control condition. In the experimental scenarios, participants were presented with a description of the bread. It contained information that the rye bread is made in Germany (Lithuania/no origin indicated) and is based on a German (Lithuanian/no origin indicated) recipe. After reading this article, participants were asked several questions about the bread mentioned in the article. Participants also responded to questions about the realism of the experimental treatments. After completing the questionnaire, participants were asked to speculate about the general purpose of the study, and none of them indicated suspiciousness. Afterward, participants were debriefed about the aim of the experiment. We measured the perceived healthiness using a three-item, seven-point Likert scale adapted from Homer (2006; "healthy," "natural," and "without additives"; $\alpha = .86$).

Results. We hypothesized that participants would perceive foreign products with a dual-identity association as equally healthy as domestic products. We expected that participants would perceive foreign products associated with a dual identity (German bread based on a Lithuanian recipe) as equally healthy as domestic products and healthier than purely foreign products (German bread based on a German recipe). To test this prediction, we ran an ANOVA with one factor (domestic product based on a domestic recipe, foreign product based on a domestic recipe, foreign product based on a foreign recipe, and control) and perception of healthiness as the dependent variable. The results of the ANOVA revealed a significant effect of origin on perception of

healthiness ($F(3, 123) = 3.87, p < .05, \eta^2 = .09$). Further posthoc analysis demonstrated that participants' perception of healthiness of foreign bread was significantly lower from that of domestic bread ($M_{\text{foreign}} = 4.57, SD = 1.63$ vs. $M_{\text{domestic}} = 5.92, SD = 1.50$). However, we also obtained nonsignificant results, such that consumers regarded bread associated with a dual origin as equally healthy as both domestic and foreign bread ($M_{\text{dual origin}} = 5.49, SD = 1.45$). The control condition did not differ from domestic, foreign, or dual-identity bread ($M_{\text{control}} = 5.23, SD = 1.71$). Thus, the healthiness bias disappeared when participants encountered German (i.e., foreign) bread made according to a Lithuanian (i.e., domestic) recipe (see Figure 8).

Discussion. In Study 4, we tested how recategorization of product-related identity alters the healthiness bias. Our results provide evidence that the healthiness bias effect disappears for a foreign product that is associated with a dual origin (related to an out-group and in-group identity). Thus, products that simultaneously have a connection with an out-group (e.g., foreign products) and the in-group are regarded as equally healthy as domestic products, in support of H_5 .

DISCUSSION AND IMPLICATIONS

Our findings provide evidence that domestic and foreign food products elicit different perceptions of healthiness. Through a self-association leading to positive distinctiveness, domestic products become linked with a “domestic = healthier” association and are more favored than foreign products. We replicated this basic effect for different types of food products (apples, tomatoes, bread, and yogurt) and different COOs. Our findings are in line with research by Loureiro and Umberger (2005), Hoffmann (2000), and Gehrt et al. (2005). Moreover, the perception of healthiness mediates the relationship between the COO and willingness to buy. In other words, domestic food products are perceived as healthier and, therefore, people are more willing to buy them. Notably, this effect is replicated for foreign countries with a positive country image. One unexpected study finding is that the perceived quality of the products does not moderate the relationships between the COO and willingness to buy through the healthiness perception. Thus, healthiness bias mediating effects act independently of quality considerations, and domestic food products are chronically perceived as healthier.

Furthermore, our findings indicate that the healthiness bias may be at least partly altered through a social

categorization process. The occurrence of this effect may depend on several factors. First, the effect can be eliminated by presenting consumers with disease risks posed by products. More specifically, when domestic and foreign products are presented in a more positive light (as providing health benefits), mediating effects of the healthiness bias exist, and domestic products are still viewed as healthier. Claiming that a foreign product is also “healthy” does not diminish the indirect mediating effect of the perception of healthiness. However, when products are presented as having a disease risk, the mediating effect of the healthiness bias vanishes. In summary, these findings enable us to conclude that the mediating effects of the healthiness bias are asymmetric (prevalent for products presented as providing health benefits and absent for products presented as posing disease risks).

Furthermore, our study results provide evidence that the healthiness bias effect disappears when foreign products carry a dual-identity association (out-group and in-group identity). Consumers who previously categorized foreign products as belonging to the out-group can recategorize them as belonging to an in-group. Consequently, the same foreign products obtain a dual identity—as being both “their” (foreign) products and “our” (domestic) products simultaneously. With a recategorization, the evaluations of former out-group products improve because they become associated with the “new” in-group products and are subsequently viewed in a more positive light. This result confirms findings by Gaertner and Dovidio (2000), which show that by changing group boundaries, favoritism toward in-group members can be expanded toward former out-group members.

The majority of the extant COO literature is based on the prediction that a high evaluation of country image leads to more positive perceptions of foreign products. Our article demonstrates that additional factors are important for understanding consumer perceptions in the food sector, and it highlights the healthiness bias role in forming preferences for domestic food products. Researching health-related biases helps shed light on consumer attitudes toward domestic- versus foreign-made food products.

Implications for Marketers and Policy Makers

The results of the study offer several implications for policy makers and marketers of domestic and imported food products. First, internationally operating companies must take into consideration more factors than just

quality or consumer ethnocentrism. To compete successfully in foreign markets, food marketers must evaluate the healthiness bias of domestic products. The relative strength of this bias may suggest that such firms alter market entry modes, a suggestion that has implications for branding/positioning strategies and targeting of advertising campaigns. Our study shows that importers cannot fully remove the inherent disadvantage of foreign products by presenting them as healthy. This implies that in the presence of high levels of healthiness biases, managers who import foreign food products should follow a localization strategy. This may be achieved by closer cooperation with local producers and presenting their products as “domestic” or “locally produced” (where legally possible). Acquiring a dual identity is also a viable approach frequently used in practice by many foreign food brands. For example, in the United Kingdom, Müller dairy products, a well-established German brand, are manufactured by U.K.-based Müller Dairy. These products greet consumers with the slogan “Welcome to Shropshire, the UK home of Müller Dairy.” The corporate story of the company is built around a superordinate European category: “When yogurt-loving Ludwig Müller first established his little Bavarian village dairy back in 1896, he could scarcely have imagined the staggering success it was to become. Today his grandson Theo runs a hugely successful business, making it possible for people across Europe to enjoy the great taste of Müller” (Müller Dairy 2015). Thus, companies following a dual-identity strategy benefit from well-known global names and can, at the same time, claim that this product is made locally and thus is more natural. Therefore, foreign manufacturers may consider involving dual identities to remove the healthiness bias.

Second, the perceived healthiness of domestic versus foreign food becomes more important with the new and increasing regulatory requirements for food labeling. Recently, the European Union (EU) adopted the Food Information Regulation 1069/2011, which calls for more extensive mandatory COO labeling (European Commission 2016). For example, manufacturers must disclose information if the food’s COO differs from the place of provenance of the primary ingredient. Thus, soon we are likely to see more products on the market with dual-origin identities. These regulatory changes may have implications for consumer behavior as a result of increased healthiness bias effects. Thus, questions regarding how foreign health-related associations interact or differ from associations of dual or local products are likely to become increasingly managerially relevant.

Third, our findings imply that marketers of domestically produced food products should focus on strengthening the communication of health benefits. This may increase a firm’s competitive advantage because consumers perceive domestic products as healthier than others. Thus, appropriate communication (e.g., branding, labeling) may assist in increasing products’ perceived value. Understanding the healthiness bias can highlight marketing opportunities, especially for small to midsize companies, which would otherwise struggle to compete with foreign producers on simple cost criteria.

Fourth, the study also offers important considerations for policy makers. For decades, the EU has worked to enforce origin-labeled food schemes and establish the rights of consumers with regard to safe food as well as accurate and honest information. Consumers use labeling to make an informed choice when purchasing foodstuffs. For example, Carpenter and Larceneux (2008) find that products with an EU-protected geographical origin are associated with greater health benefits. However, it remains unclear how origin labeling may be related to products’ actual healthiness. Consumers can opt for domestic food because of perceived healthiness, but in reality those products may be of poor quality or even bad for one’s health. The relationship between the healthiness bias and labeling poses an open question for both researchers and regulators. The healthiness bias may be important for consumer rights protection and confidence in governmental regulation. For national and international policy makers, the strong healthiness bias prevalent in the marketplace indicates a need to (1) understand whether these biases are rational, (2) expand the regulation scope, or (3) engage in public health awareness campaigns. Next, although we did not aim to test actual domestic or foreign product healthiness differences, another stream of research could try to investigate this issue. If significant differences among domestic and foreign product healthiness exist and are not reflected in consumers’ behavior or perception, policy actions should be taken to avoid such societal problems as rising levels of obesity from incorrect assumptions about food healthiness. Combining interdisciplinary knowledge from medicine, food, and nutrition research with behavioral sciences offers fruitful avenues for research as well as grounded evidence for policy making.

Limitations and Further Research

Our study sheds additional light on understanding how food origin is related to the perception of healthiness. Several issues merit attention for further research. First, in

our study we test only one model of recategorization (the dual-identity model by Gaertner and Dovidio [2000]). However, extant social psychology literature has proposed several prejudice-reduction strategies—for example, decategorization (Miller and Brewer 1984), mutual intergroup differentiation (Hewstone and Brown 1986), and the common in-group identity model (recategorization; Gaertner et al. 1989). These theoretical models offer a promising direction for further research in exploring the healthiness bias effect.

Second, many food companies that enter foreign markets follow the principle, “hide the origin,” or choose a “glocal” origin. Consider that the largest global food producer, Nestlé, tailors its products to local needs and offers more than 2,000 global and local brands. In addition to its globally known chocolate and coffee brands, Nestlé is also the world’s largest producer of halal food for Muslims (Kowitz 2010). An open question for such global giants is whether to market their products as “just local” or to add a “touch of globalness” to their brands. When selling halal or traditional Chinese food, does cobranding a local brand with a global Nestlé brand add to or diminish perceived healthiness? To rephrase the question in terms of categorization theory, does global branding offer a suitable dual category capable of inducing in-group favoritism and increasing the perception of healthiness? There might be several situations in which using common in-group or dual-identity-related labels increases perceived value and healthiness perception of the product. However, at the same time, Dovidio, Gaertner, and Saguy (2009) warn about the potential “dark side of we,” because attempts to create a common identity may produce superordinate identities that are unstable and indeed exacerbate bias. Therefore, an open question, which is both theoretically and managerially relevant, is under what circumstances consumers prefer dual identities.

Third, Orth and Firbasova (2003) suggest that attitude formation toward foreign-made products may change as the perceived value and risk of the product category increases. Therefore, healthiness bias levels may also fluctuate over time on the basis of external factors. For example, in 2013, the horse meat scandal led to a consumer confidence crisis in Europe’s food processing industry (European Commission 2014). Similarly, the 2008 milk contamination scandal in China raised distrust in domestic manufacturers’ food for many years afterward. Such compromising events may also decrease the perception of domestic products’ healthiness. Therefore, future studies should explore how consumers’ healthiness

biases change depending on external conditions; longitudinal studies would provide valuable insights into these processes.

Fourth, we tested the healthiness bias in two developed countries (Switzerland and Lithuania), and these results should be replicated in other settings. Different levels of country development may be related to preferences for nonlocal brands. For example, Batra et al. (2000) find that consumers in developing countries view foreign brands as more prestigious and as enhancing for social identity. Furthermore, Supphellen and Rittenburg (2001) propose that in developing countries, when foreign products are significantly better than domestic ones, consumers conform to the overall public opinion and prefer imported products. In our study, we also did not test healthiness bias effects under different pricing, product superiority, or labeling conditions. Furthermore, the strength of healthiness bias may depend on and be differently expressed for packaged versus unpackaged food, hedonic food, or stereotypical associations (e.g., Italian mozzarella cheese).

Fifth, although the aim of this study was to observe the healthiness bias effect for domestic products, we did not fully test the process behind this effect. Further research could attempt to gain a deeper understanding of the underlying healthiness bias formation mechanisms. For example, different identity cues may lead to differences in healthiness bias. In Study 4, we manipulated dual identity through a recipe. However, some studies provided empirical evidence that authenticity matters for domestic, foreign, or global product preferences (e.g., Nijssen and Douglas 2011). Thus, authenticity of the recipe may have an influence on healthiness bias formation. In summary, several questions remain open for future studies in explaining further influences or limits of the healthiness bias.

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