



Research report

Too close to home. Factors predicting meat avoidance

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ABSTRACT

In most societies, meat is valued more highly, yet tabooed more frequently, than any other type of food. Past research suggests that people avoid eating animals they consider similar to themselves, but what specific factors influence which they eat, and which they avoid? Across an array of samples from the USA, Canada, Hong Kong, and India, perceived animal intelligence and appearance emerged as the chief predictors of disgust at the thought of eating them. Furthermore, reflecting on animals' psychological attributes increased reported disgust, especially among Euro-Canadians and Euro-Americans, suggesting that these factors are more influential in shaping disgust in individualistic cultural contexts. Concordant with past research, disgust was a major predictor of willingness to eat animals, but social influence (frequency of consumption by friends and family) also emerged as a strong predictor, especially among Hong Kong Chinese and Indians, providing evidence that one's friends and family have a stronger influence on one's food choices in collectivistic cultural contexts.

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In stark contrast to most other animals, who instinctively know what foods to eat, humans must learn these distinctions. Like bears, chimpanzees, and raccoons, most humans follow an omnivorous diet, and benefit from remarkable nutritional flexibility. However, this flexibility is not without its downsides – by choosing from a wider range of foods, humans also have a higher risk of consuming harmful substances or missing essential nutrients, a phenomenon that [Rozin \(1976\)](#) refers to as “the omnivore's dilemma.” The omnivore's dilemma is especially pronounced when dealing with meat, which is paradoxically one of the most valued, yet most frequently tabooed foods ([Fessler & Navarrete, 2003](#)). Animals often harbor a wide range of bacteria and protozoans ([Schantz & McAuley, 1991](#)), and after an animal dies, and its immune system ceases to function, these pathogens are able to proliferate more rapidly. Of course, animals are not the only potentially hazardous food sources – many species of plants and fungi are also highly toxic if ingested. Although detection of poisonous fungi can be difficult, most poisonous plants present clear signals of their toxicity ([Hladik & Simmen, 1996](#)), so as to discourage other organisms from eating them. Although bacteria often produce an unpleasant odor when proliferating on meat, natural selection has favored those microorganisms that can be consumed unknowingly, and detection of protozoa is especially difficult ([Fessler & Navarrete, 2003](#)). Thus, despite the fact that meat is a concentrated source of fat and protein, pathogens in meat are often harder to detect than those in plants, and humans are especially

well-served to have feelings of uncertainty and ambivalence about eating unfamiliar animals.

How, then, do people decide which animals to eat, and which to avoid? People rarely consider scavengers, carnivores, and those animals associated with dirt and filth, such as mice and insects, as viable food options ([Angyal, 1941](#)). Animals closely associated with house and home, such as dogs and cats in most Western societies, are also frequently tabooed ([Fessler & Navarrete, 2003](#)). Theorists have proposed that the avoidance of meat may be related to an animal's perceived similarity to humans ([Angyal, 1941](#); [Rozin & Fallon, 1987](#)), in part because humans are more vulnerable to parasites and pathogens from more closely related species ([Fessler & Navarrete, 2003](#)). Turning from the biological to the psychological, there is broad, cross-cultural evidence that the killing of animals for food elicits varying degrees of guilt and tension (e.g., [Beardsworth, 1995](#); [Plous, 1993](#); [Simoons, 1961](#)), and that people often mentally separate the meat they eat from its ultimate animal origins, such that they can eat steak and sausages without thinking of the cows and pigs from which they came ([Hoogland, de Boer, & Boersma, 2005](#)). Therefore, humans may be especially reticent to kill and eat animals that they perceive to have similar mental and emotional capacities as themselves. Indeed, people ascribe higher cognitive functions to animals that they perceive to be similar to themselves ([Epley, Waytz, Akalis, & Cacioppo, 2008](#)), and relative to vegetarians, omnivores attribute significantly less mental and emotional complexity to animals ([Bilewicz, Imhoff, & Drogosz, 2011](#)). How people classify animals (e.g., as pest, pet, or food) has a dramatic impact on how they interact with them ([Joy, 2009](#)). Experimental evidence reveals that simply categorizing animals as food sources significantly reduces participants' ratings of said

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animals' capacity for suffering, and subsequent moral concern (Bratanova, Loughnan, & Bastian, 2011). Likewise, people were found to attribute diminished mental capacities (e.g., fear, self-control, memory) to commonly eaten animals, and direct reminders of the link between meat eating and animal suffering were not gladly received, leading people to further demoralize the animals that they eat (Bastian, Loughnan, Haslam, & Radka, 2012). Furthermore, participants who were randomly assigned to eat beef jerky later expressed less concern for cows, considered them less worthy of moral status, and rated them as less capable of suffering than those who had been randomly assigned to consume nuts (Loughnan, Haslam, & Bastian, 2010).

Often, when people are asked why they would not eat a particular animal, rather than directly invoking concerns about animal mental states, they respond with a simple "that's disgusting!" Acting as the stomach's gatekeeper, the emotion of disgust is proposed to have evolved to prevent humans from ingesting harmful substances, and is especially sensitive to indicators of blood, excrement, sex, death, and disease (Haidt, Rozin, McCauley, & Imada, 1997). Disgust is a critical factor in determining people's willingness to ingest a given food (Rozin & Fallon, 1987), but what particular animal characteristics predict disgust at eating animals? Bastian et al. (2012) demonstrated that perceived mental capacity (a composite of attributes ranging from capacity for pain and fear to emotion recognition) was negatively associated with animal edibility. Beyond characteristics of the animals themselves, Ruby (2008) found that whereas disgust was the strongest negative predictor of people's willingness to eat a range of animals, exposure to animals' meat in stores positively predicted their willingness to eat them, ostensibly because the presence of the meats in stores indicates that other people in one's community are eating them on a regular basis, and that the consumption of such meats is both safe and socially acceptable.

Although culture itself plays a dramatic role in shaping people's food preferences (Rozin, 1990), little is presently known about the factors that underlie people's willingness to eat, and feelings of disgust at the thought of eating, animals in non-Western, collectivistic cultures. Indeed, psychology in general has conducted distressingly little research in non-Western cultural contexts (Henrich, Heine, & Norenzayan, 2010). Regarding food in general, there is evidence within a number of individualistic Western cultures for a significant, yet small influence of one's family members on one's food choices (e.g., Hursti & Sjöden, 1997; Pliner & Pelchat, 1986; Rozin, Fallon, & Mandell, 1984; Rozin & Millman, 1987). Referring to close others' food choices when deciding what foods to eat should be useful in all cultural contexts, as it stands to reason that commonly eaten foods are likely to taste good, and be reasonably safe to consume. However, there is evidence to suggest that the food choices of close others might hold greater predictive power in other cultural contexts. Within collectivistic cultures, more value is placed on fitting in with close others, and people in these cultures exhibit higher levels of conformity than those from individualistic cultures (e.g., Bond & Smith, 1996; Cialdini & Goldstein, 2004). Past research has shown that relative to Euro-Americans, East Asians based their choices on what others liked (Iyengar & Lepper, 1999; Kim & Markus, 1999), and this trend was mirrored within advertising in popular magazines, such that advertisements in Korean magazines more frequently emphasized themes of conformity and group harmony, whereas American advertisements more commonly utilized themes of uniqueness and individuality (Kim & Markus, 1999). Similarly, recent research on how people from different cultures choose consumer products has indicated that those in Indian cultural contexts are less likely than those from North American cultural contexts to choose according to their personal preferences (Savani, Markus, & Conner, 2008). Thus, the food choices of close

others may influence people's own choices to a greater degree in collectivistic cultural contexts.

An examination of the factors that influence people's decisions to eat some animals and avoid others led to the following five hypotheses. First, we predicted that perceived humanlike characteristics of animals (e.g., intelligence, capacity for emotion, capacity for suffering) would positively predict disgust at the thought of eating them. Second, to the extent that a key concern about eating meat is the perceived similarity between animals and humans (e.g., Angyal, 1941; Rozin & Fallon, 1987), we hypothesized that reflecting on animals' humanlike characteristics would lead to increased disgust at the thought of eating them. Third, we hypothesized that disgust would negatively predict people's willingness to eat animals. Fourth, we predicted that social influence (measured by frequency of consumption by friends and family) would positively predict willingness to eat animals. Finally, we predicted that the impact of social influence would be greater among participants from collectivistic cultural backgrounds. Study 1 tests these hypotheses among student samples in Canada and Hong Kong, whereas Study 2 tests them among non-student samples in the USA and India.

Study 1

Method

Six hundred and eight omnivores were recruited from the campuses of the University of British Columbia and the Chinese University of Hong Kong (76 Euro-Canadians, 54% women, $M_{age} = 25.3$, $SD_{age} = 8.89$; 532 Hong Kong Chinese, 65% women, $M_{age} = 20.4$, $SD_{age} = 1.31$). For their time, all participants were entered into a cash draw. Due to the nature of the analyses, an additional 56 non-omnivore participants were excluded from analysis (24 Euro-Canadians, 32 Hong Kong Chinese).

Participants completed a survey in which they rated their perceptions of 17 different animals (bear, chicken, cow, crow, dog, dolphin, duck, eel, horse, lamb, monkey, octopus, parrot, pig, rat, shark, and snake). There were two versions of the survey, which manipulated the order in which participants rated their perceptions of the animals to see whether this influences people's thoughts about the animals as potential food. In the *Attributes First* condition, participants first rated each animal's non-food attributes (intelligence, capacity for emotional bonding with humans, capacity for suffering, and appearance: ugly/neutral/cute). In the *Food First* condition, participants first rated each animal's food-related attributes (willingness to eat, disgust at the thought of eating, and frequency of consumption by friends and family). All ratings were done on a nine-point (−4 to 4) Likert scale.

Results and discussion

To investigate how animals' attributes impact people's feelings about eating them, we predicted disgust from the variables of perceived animal intelligence, capacity for suffering, appearance, squared appearance (i.e., deviation from neutral toward cute or ugly), and capacity for emotional bonding with humans. Standard errors for these, and all subsequent regression coefficients, were calculated via STATA's *vca* cluster operation. This regression procedure assumes independence of responses between participants, and not within-participant responses, and corrects for the fact that each participant has 17 data points per variable (e.g., disgust, appearance, intelligence). All together, these variables significantly predicted disgust for Euro-Canadian ($R^2 = .24$, $p < .001$) and Hong Kong Chinese ($R^2 = .15$, $p < .001$) participants. Within both samples,

holding all other predictor variables constant, animal intelligence was the strongest positive predictor of disgust, followed by appearance (more disgust at eating ugly animals) and appearance² (more disgust at eating animals that deviated from the neutral point of the scale). Perceived capacity for emotional bonding with humans emerged as a small yet significant positive predictor, but only among Hong Kong Chinese participants. Finally, perceived capacity for suffering did not emerge as a significant predictor among any of the samples. Thus, of all the aforementioned animal attributes, it seems that perceived intelligence and appearance are the most important predictors of disgust. For standard regression weights and significance levels, see Table 1.

To test our hypothesis that reflecting on animals' attributes increases disgust at the thought of eating them, we conducted a 2 (version) × 2 (gender) × 2 (culture) ANOVA on disgust at the thought of eating the animals. The main effect of version was significant, $F(1,598) = 31.91, p < .001, d = .69$, such that participants in the *Attributes First* condition reported greater disgust ($M = 1.06, SD = 1.14$) than those in the *Food First* condition ($M = .29, SD = 1.09$). This suggests that when people are behooved to consider the psychological attributes of an animal, it renders that animal less desirable as a food product. The main effect of gender was also significant, $F(1,598) = 49.37, p < .001, d = .86$, such that women reported greater disgust ($M = 1.15, SD = 1.06$) than did men ($M = .19, SD = 1.18$), which is consistent with much past research (e.g., *Aunger, 2000; Kubberod, Ueland, Tronstad, & Risvik, 2002; Simoons, 1994*). The main effect of culture was not significant ($p = .16$), but culture interacted significantly with both version, $F(2,598) = 6.22, p < .02$, and gender, $F(2,598) = 18.55, p < .001$. Analysis of simple effects revealed that the gender difference in disgust was more pronounced among Euro-Canadian participants ($p < .001, d = 1.05$) than among Hong Kong Chinese ($p < .001, d = .35$) participants, and the effect of version was also more pronounced among Euro-Canadian participants ($p < .02, d = .56$) than among Hong Kong Chinese participants ($p < .001, d = .39$). This suggests that there are larger gender differences in Euro-Canadians' baseline attitudes toward eating animals, and that reflecting on the psychological attributes of an animal more strongly impacts disgust among Euro-Canadians than among Hong Kong Chinese. This differential impact is concordant with the underpinnings of Western vegetarianism, wherein concern for animal welfare has historically been the primary motivator for people to stop eating animals (*Preece, 2008*). Hence, Euro-Canadian omnivores might be more preoccupied with the mental states of animals than are omnivores from other cultural contexts. No other interactions were significant.

To test the hypothesized impact of disgust and social influence on participants' willingness to eat animals, and whether these variables operate at different strengths across cultures, we predicted willingness to eat from disgust, social influence (frequency of consumption by friends and family), culture (dummy coded as Hong Kong Chinese: yes/no, with Euro-Canadian as the basis of comparison), and the interactions of culture with disgust and social influ-

ence. The regression was significant ($R^2 = .73, p < .001$), with disgust emerging as a significant negative predictor of willingness to eat ($\beta = -.706, p < .001$), and social influence ($\beta = .194, p < .01$) as a significant positive predictor. Although culture itself was not a significant predictor ($\beta = -.038, p = .13$), culture interacted significantly with both disgust ($p < .001$) and social influence ($p < .001$). To examine these differences, we conducted a multiple regression within each culture, predicting willingness to eat the animals from disgust and social influence. The predictor variables significantly predicted disgust for both Euro-Canadian ($R^2 = .79, p < .001$) and Hong Kong Chinese ($R^2 = .70, p < .001$) participants. Among Euro-Canadians, disgust was a significant negative predictor of willingness to eat ($\beta = -.758, p < .001$), and social influence ($\beta = .140, p < .01$) was a significant positive predictor. Among Hong Kong Chinese, a somewhat different pattern emerged. Disgust was a significant negative predictor of willingness to eat, yet considerably less so than in the Euro-Canadian sample ($\beta = -.416, p < .001$), whereas social influence ($\beta = .493, p < .001$) emerged as a stronger positive predictor. Thus, although disgust and social influence were significant predictors of willingness to eat in both samples, social influence carried relatively more weight in the Hong Kong Chinese sample.

This study supported our hypotheses that the perceived humanlike attributes of animals predict disgust at the thought of eating them, and that reflecting on these attributes increases disgust. Within both cultural groups, disgust was a significant negative predictor of willingness to eat animals, and social influence was a significant positive predictor. As hypothesized, however, social influence had greater predictive power among Hong Kong Chinese than among Euro-Canadian participants. Thus, this study provides initial evidence that the choices of close others may indeed have more of an impact on one's own food choices in collectivistic cultural contexts. However, this study compared only one individualistic and one collectivistic culture. In an effort to further illuminate our understanding of how people in various cultural contexts resolve the omnivore's dilemma, in Study 2 we moved from student samples in Canada and Hong Kong to more general adult populations in the United States and India.

Study 2

Method

One hundred and eighty-eight omnivores were recruited from Amazon.com's Mechanical Turk testing service (an online, inexpensive, and reliable source of data; *Buhrmeister, Kwang, & Gosling, 2011*) for a small honorarium (96 Euro-Americans, 57% women, $M_{age} = 34.1, SD_{age} = 13.49$; 92 Indians, 40% women, $M_{age} = 29.58, SD_{age} = 7.87$). Due to the nature of the analyses, an additional 123 non-omnivore participants were excluded from analysis (25 Euro-Americans, 98 Indians). Participants completed the same measures as in Study 1.¹

Results and discussion

To investigate how animals' attributes impact people's feelings about eating them, we predicted disgust from the non-food variables (*viz.*, perceived intelligence, capacity for suffering, appearance, squared appearance, and capacity for emotional bonds with

Table 1
Standardized multiple regression coefficients predicting disgust at eating animals.
Note: *** $p < .001$, ** $p < .01$, * $p < .05$.

	Study 1		Study 2	
	Euro-Canadian	Hong Kong Chinese	Euro-American	Indian
Suffering	0.029	-0.017	0.031	0.011
Appearance	-0.201***	-0.225***	-0.252***	-0.200***
Appearance ²	0.169***	0.144***	0.259***	0.110**
Emotion	-0.041	0.060**	0.081	-0.100*
Intelligence	0.509***	0.344***	0.267***	0.303***

¹ Because cows and pigs are commonly tabooed in Indian culture for religious reasons, including them in the group of animals studied may have affected the comparisons of Euro-American and Indian participants. However, excluding cow and pig from analysis does not alter any of our inferences, save that perceived animal intelligence becomes a significant positive predictor of disgust among Euro-American participants, $\beta = .089, p < .05$.

humans). All together, these variables significantly predicted disgust for Euro-American ($R^2 = .15$, $p < .001$) and Indian ($R^2 = .11$, $p < .001$) participants. Among both samples, holding all other predictor variables constant, animal intelligence was once again the strongest positive predictor of disgust, followed by appearance (more disgust at eating ugly animals) and appearance² (more disgust at animals that deviated from the neutral point of the scale). Contrary to our hypotheses, perceived capacity for emotional bonds with humans emerged as a significant yet small negative predictor in the Indian sample. Again, perceived capacity for suffering did not emerge as a significant predictor in either sample. Thus, as in Study 1, it appears that perceived animal intelligence and appearance trump the other attributes in predicting disgust. For standard regression weights and significance levels, see Table 1.

To test our hypothesis that reflecting on animals' attributes increases disgust at the thought of eating them, we conducted a 2 (version) \times 2 (gender) \times 2 (culture) ANOVA on disgust at the thought of eating the animals. The main effect of version was significant, $F(1, 179) = 13.33$, $p < .001$, $d = .50$, such that participants in the *Attributes First* condition reported greater disgust ($M = 1.83$, $SD = 1.38$) than those in the *Food First* condition ($M = 1.17$, $SD = 1.28$). As in Study 1, this suggests that people stop to reflect on the psychological attributes of an animal, it renders that animal less desirable as a food source. The main effect of gender was also significant, $F(1, 179) = 9.97$, $p < .01$, $d = .42$, such that women reported greater disgust ($M = 1.78$, $SD = 1.28$) than did men ($M = 1.21$, $SD = 1.41$). The main effect of culture was also significant, $F(1, 179) = 9.97$, $p < .01$, $d = .80$, such that Indians reported greater disgust ($M = 2.01$, $SD = 1.28$) than did Euro-Americans ($M = .98$, $SD = 1.28$). Culture interacted marginally with version, $F(1, 179) = 3.20$, $p = .075$. Analysis of simple effects revealed that the effect of version was significant among Euro-American participants ($p < .001$, $d = .84$), but not among Indian participants ($p = .38$, $d = .17$). Thus, reflecting on animals' psychological attributes has a greater impact on disgust among Euro-Americans than among Indians, suggesting that disgust at eating meat among Euro-Americans may be more linked to the anthropomorphizing of animals than it is among Indians.

To test the hypothesized impact of disgust and social influence on participants' willingness to eat animals, and whether these variables operate at different strengths across cultures, we predicted willingness to eat from disgust, social influence, culture (dummy coded as Indian: yes/no, with Euro-American as the basis of comparison), and the interactions of culture with disgust and social influence. The regression was significant ($R^2 = .77$, $p < .001$), with disgust emerging as a significant negative predictor of willingness to eat ($\beta = -.796$, $p < .001$), and social influence ($\beta = .124$, $p < .01$) as a significant positive predictor. Culture was a significant predictor ($\beta = -.201$, $p < .001$), with Indians reporting less willingness to eat, and culture interacted significantly with both disgust ($p < .001$) and social influence ($p < .005$). To examine these differences, we conducted a multiple regression within each culture, predicting willingness to eat the animals from disgust and social influence. These variables significantly predicted disgust for both Euro-American ($R^2 = .76$, $p < .001$) and Indian ($R^2 = .74$, $p < .001$) participants. Among Euro-Americans, disgust was a significant negative predictor of willingness to eat ($\beta = -.784$, $p < .001$), and social influence ($\beta = .124$, $p < .01$) was a significant positive predictor. Among Indians, a rather different pattern emerged. Disgust was a significant negative predictor of willingness to eat, yet less so than in the Euro-American sample ($\beta = -.524$, $p < .001$), whereas social influence ($\beta = .397$, $p < .001$) emerged as stronger positive predictor than among Euro-Americans. These results parallel those of Study 1, such that disgust and social influence emerged as significant predictors of willingness to eat in both samples, but social influence carried relatively more weight in the Indian sample.

Again, the data supported our hypotheses that the perceived humanlike attributes of animals predict disgust at the thought of eating them, and that reflecting on animals' humanlike qualities significantly increases people's disgust at the thought of eating them. However, there were significant cultural differences, such that Indian participants reported more overall disgust and less willingness to eat than Euro-Americans, and that reflecting on the animals' attributes did not significantly impact their reported disgust. Taken together, these two findings suggest that attitudes toward meat consumption may be more fixed in Indian cultural contexts. As predicted, within both cultural groups, disgust was a significant negative predictor of willingness to eat animals, and social influence was a significant positive predictor. Also as predicted, social influence had greater predictive power in the Indian than in the Euro-American sample, providing further evidence that the influence of close others has a more dramatic influence on one's own food choices in collectivistic cultural contexts.

General discussion

Across both studies, perceived animal intelligence and appearance trumped all other measured factors, emerging as the chief predictors of disgust at the thought of eating animals. Furthermore, reflecting on animals' psychological attributes increased disgust, especially among Euro-Canadians and Euro-Americans, suggesting that the psychological attributes of animals may be more relevant in shaping disgust, or that disgust may simply be more malleable, within Euro-Canadian and Euro-American cultural contexts. Concordant with past research, disgust was a major predictor of willingness to eat animals, but social influence (frequency of consumption by friends and family) also emerged as a strong predictor, especially among Hong Kong Chinese and Indians.

Resolving the omnivore's dilemma, especially as it pertains to eating animals, is no trivial task. Although a growing number of people sidestep this particular dilemma by not eating any animals at all (Ruby, 2012), the majority of the world's human population follows an omnivorous diet. Given that people demonstrate a motivation to perceive food animals as less intelligent (e.g., Bratanova et al., 2011; Plous, 1993), it is fitting that perceived animal intelligence was consistently the strongest predictor of disgust. Surprisingly, perceived capacity for suffering provided no significant predictive power, and perceived capacity for emotional bonding with humans had minor and inconsistent predictive power, emerging as a weak positive predictor of disgust among Hong Kong Chinese participants, a weak negative predictor of disgust among Indian participants, and not reaching significance at all among Euro-Canadian and Euro-American participants. Thus, of all three potential concerns (that the meat on one's plate may have come from an animal that was intelligent, capable of emotion, and able to suffer), people appear most concerned by the prospect of eating other intelligent beings. This has potential implications for animal welfare organizations, suggesting that their outreach efforts might be more successful if they modify their campaigns to focus on the intelligence of the animals for whom they are advocating. Future research would help determine whether the factors that predict disgust at the thought of eating animals also predict disgust at their general mistreatment. Moving from the internal to the external, animals' appearance had a consistently strong impact on people's thoughts about eating them – people were more disgusted by eating animals that they perceived to be too ugly or too cute, preferring to eat animals that they considered relatively neutral in appearance. Ostensibly, people maybe be averse to eating the ugly because they strongly dislike their appearance, yet also averse to eating the cute, as they view them in a positive light, and do not want to see them killed and eaten. This finding is concordant with

past research on endangered species, such that people reported greater support for the protection of attractive species (Gunnthorsdottir, 2001).

In stark contrast to directly making salient the link between meat and animal suffering, which can lead people to demoralize the animals they eat (Bastian et al., 2012), the present studies demonstrate that having people first reflect on their own perceptions of animals' attributes subsequently increases their disgust at the thought of eating them. Indeed, as these very attributes predict disgust at the thought of eating animals, it is fitting that dwelling on them increases disgust. However, reflecting on the animals' attributes was more impactful on Euro-Canadian and Euro-American participants than on Hong Kong Chinese and Indian participants. Although we are unaware of any other research that has examined cultural differences in the factors that impact meat eating, this differential impact is concordant with the underpinnings of Western vegetarianism, with its primary focus on animal welfare (Preece, 2008). By extension, it is possible that Euro-Canadian and Euro-American omnivores are more preoccupied with the mental states of the animals that they do (and do not) eat than are omnivores from other cultural contexts, or that disgust at the thought of eating animals is simply less malleable in collectivistic cultural contexts.

Concordant with past literature (e.g., Haidt et al., 1997; Rozin & Fallon, 1987), disgust emerged as a strong predictor of willingness to eat the animals across all of the cultural groups. However, we also found broad evidence across all four groups for the predictive power of social influence, as indexed by the eating habits of one's family and friends. Although past research indicates that within individualistic cultural contexts, one's family and friends have relatively little impact on one's food choices (e.g., Hursti & Sjöden, 1997; Pliner & Pelchat, 1986; Rozin et al., 1984; Rozin & Millman, 1987), we found that the food choices of close others held strong predictive power in collectivistic cultural contexts (Hong Kong Chinese and Indians). Although these results are concordant with past research on culture and conformity (e.g., Bond & Smith, 1996; Cialdini & Goldstein, 2004; Kim & Markus, 1999; Savani et al., 2008), these studies are the first to our knowledge that demonstrate such cultural differences in how people make their food choices.

Replicating much past research (for a review, see Rozin, Hormes, Faith, & Wansink, 2012; Ruby, 2012), robust gender differences emerged across both studies, such that women were more disgusted than men at the thought of eating animals. In addition to demonstrating gender differences across an array of cultural contexts, these results extend the current literature by providing initial evidence that the magnitude of such differences may vary across cultures. Indeed, these gender differences were especially pronounced among Euro-Canadian participants ($d = 1.05$), compared to gender differences among Euro-American ($d = .57$), Hong Kong Chinese ($d = .35$), and Indian ($d = .33$) participants. Although the Euro-Canadian data were collected at UBC, a rather liberal university in a city where vegetarianism is relatively common, that does not explain the existence of such striking differences between male and female omnivores. Given that women are generally more disgust-sensitive than men (e.g., Druschel & Sherman, 1999; Haidt, McCauley, & Rozin, 1994; Quigley, Sherman, & Sherman, 1997) and given that our Euro-Canadian participants' disgust ratings were most impacted by reflecting on animals' psychological attributes, it is possible that Euro-Canadian women were especially affected by these concerns. To the best of our knowledge, these studies are the first to reveal such cultural variation in this domain, and future research is needed to unpack the potential reasons for these large differences.

Keeping in mind the narrow cultural scope of the present literature, it is important for future research to be conducted with

people from a broad array of cultural contexts, and the current findings raise a number of questions. Given the consistent strength of perceived animal intelligence as a predictor of disgust, it begs the question of whether manipulating people's perceptions of animals' intelligence would also impact their disgust at the thought of eating them. Relatedly, it would be highly informative to investigate perceptions of different animals' mental capacities in countries where they are commonly considered food animals or companion animals (e.g., dogs in Canada vs Korea; horses in the USA vs. Belgium). Moving beyond the question of eating animals, another natural extension of the present research would be to examine what particular characteristics besides physical appearance predict people's concern for endangered species, how this pattern may vary across cultures, and how this could be harnessed to increase public support for their protection.

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