

Current Directions in Psychological Science

<http://cdp.sagepub.com/>

The Psychology of Eating Animals

Steve Loughnan, Brock Bastian and Nick Haslam
Current Directions in Psychological Science 2014 23: 104
DOI: 10.1177/0963721414525781

The online version of this article can be found at:
<http://cdp.sagepub.com/content/23/2/104>

Published by:



<http://www.sagepublications.com>

On behalf of:



[Association for Psychological Science](http://www.sagepublications.com)

Additional services and information for *Current Directions in Psychological Science* can be found at:

Email Alerts: <http://cdp.sagepub.com/cgi/alerts>

Subscriptions: <http://cdp.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>


>> [Version of Record](#) - Apr 1, 2014

[What is This?](#)

The Psychology of Eating Animals

Steve Loughnan¹, Brock Bastian², and
Nick Haslam¹

¹University of Melbourne and ²University of Queensland

Current Directions in Psychological
Science
2014, Vol. 23(2) 104–108
© The Author(s) 2014
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0963721414525781
cdps.sagepub.com


Abstract

Most people both eat animals and care about animals. Research has begun to examine the psychological processes that allow people to negotiate this “meat paradox.” To understand the psychology of eating animals, we examine characteristics of the eaters (people), the eaten (animals), and the eating (the behavior). People who value masculinity, enjoy meat and do not see it as a moral issue, and find dominance and inequality acceptable are most likely to consume animals. Perceiving animals as highly dissimilar to humans and as lacking mental attributes, such as the capacity for pain, also supports meat-eating. In addition to these beliefs, values, and perceptions, the act of eating meat triggers psychological processes that regulate negative emotions associated with eating animals. We conclude by discussing the implications of this research for understanding the psychology of morality.

Keywords

animals, food, mind, morality, identity, emotion

Most people eat meat. They do so fully aware that it comes from animals, at the cost of their lives. The rate at which we eat animals is truly staggering. The average American consumes approximately 120 kg (264 lb) of meat annually (Food and Agriculture Organization of the United Nations, 2013), an appetite fed by the slaughter of 10 billion land animals (90% are chickens; Joy, 2010). Globally, the average person consumes an estimated 48 kg (106 lb) of meat annually, requiring over 50 billion land animals (Food and Agriculture Organization of the United Nations, 2013). We have eaten meat for millennia, and our meat consumption predates human civilization (Rose & Marshall, 1996).

The avidity of our meat consumption seems to imply that we do not care about animals. This is clearly not correct. Most people find animal suffering emotionally disturbing and morally repugnant (Allen et al., 2002; Plous, 1993). As our meat consumption grows, so too do our expenditures on pets (American Pet Products Association, 2013) and the legal rights we afford animals (Tischler, 2012). This reflects the “meat paradox”: Most people care about animals and do not want to see them harmed but engage in a diet that requires them to be killed and, usually, to suffer (Herzog, 2010; Joy, 2010; Singer, 1975). Despite this suffering and premature death conflicting with peoples’ beliefs about how animals should be treated, most people continue to eat meat. This paradox

may not apply to all forms of meat eating (e.g., the eating of roadkill), may apply differently to meat producers, and may not always be experienced subjectively as a conflict. However, it highlights the moral dilemma involved in eating animals, a dilemma that all people resolve.

We will examine the psychological factors that support eating animals by focusing on characteristics of the eaters (people), the eaten (animals), and the eating (the act of consumption). We finish by discussing how psychological resolution of the meat paradox can inform our understanding of morality.

The Eaters

The surest way to eliminate moral tension associated with eating animals is to not eat them. Vegetarians experience no conflict between their beliefs about animal harm and their dietary practices. Studies of vegetarianism have revealed that moral concern regarding the raising and slaughter of animals is a principal motivation for eliminating meat consumption (Amato & Partridge, 1989; Ruby, 2012). In addition to motivating dietary change,

Corresponding Author:

Steve Loughnan, School of Psychological Sciences, University of Melbourne, Australia, VIC 3010
E-mail: sloughnan@unimelb.edu.au

valuing animal welfare helps sustain and moralize vegetarian diets (Rozin, Markwith, & Stoess, 1997). Vegetarians avoid the meat paradox through a behavioral choice driven by moral concern for animals.

Nevertheless, vegetarians seldom exceed 10% of any national population—most people consume meat. The primary motivation omnivores report is that meat tastes good (Lea & Worsley, 2003). Its appetitive qualities likely reflect an evolved preference for foods high in fat, protein, and calories (Stanford, 1999). However, meat can also elicit disgust, arguably because it poses a higher risk of carrying dangerous pathogens than plant material (Fessler & Navarrete, 2003). This oral disgust can also be a moral disgust for some, providing an emotional base for their moral avoidance of meat (Rozin et al., 1997). People's feelings toward meat are therefore ambivalent, and the balance of pleasure and disgust helps determine who eats meat and who rejects it (Rozin, 1996, 2004; Rozin et al., 1997).

Some meat eaters find their consumption less morally problematic than others. Two political ideologies underlying this individual difference are authoritarianism, the belief that it is acceptable to control and aggress against subordinates (Altemeyer, 1981), and social dominance orientation (SDO), the endorsement of social hierarchy and inequality (Sidanius & Pratto, 2001). Research has found that omnivores are higher in both factors than vegetarians and that omnivores who value inequality and hierarchy eat more red meat than those who do not (Allen & Baines, 2002; Allen, Wilson, Ng, & Dunne, 2000).

People may also eat meat because it expresses their identity. At a personal level, meat consumption is tied to male identity, and its consumption makes some males feel like “real men” (Rothgerber, 2013). The association is so close that meat has become metaphorically “male” (Rozin, Hormes, Faith, & Wansink, 2012), such that meat eaters are perceived as more masculine than vegetarians (Ruby & Heine, 2011). Rejecting meat can also help express valued identities. A recent cross-cultural study of vegetarianism found that Indian vegetarians value their in-group and respect authority more than omnivorous Indians do (Ruby, Heine, Kamble, Cheng, & Waddar, 2013). This finding indicates that the decision to reject meat may be tied to a sense of belonging to a cultural group and endorsement of group values.

In sum, the psychological characteristics of eaters may influence their appetite for eating animals. People for whom meat is a moral issue of animal welfare are inclined to eschew it; people who accept or endorse domination and inequality eat meat eagerly. Hedonic and identity-related motives also play important roles.

The Eaten

Understanding how people think about animals—the eaten—offers insights into the psychology of meat eating

that complement those based on understanding the characteristics of eaters. In particular, an animal's perceived mind and its perceived similarity to humans are key factors influencing people's willingness to eat it.

Eating animals is morally troublesome when animals are perceived as worthy of moral concern. The more moral concern we afford an entity, the more immoral it becomes to harm it. People show considerable variability in the extent to which they deem animals worthy of moral concern (Bastian, Loughnan, Haslam, & Radke, 2012). This variability is partially determined by the extent to which animals are perceived to be capable of suffering. The idea that an animal's pain sensitivity can determine its moral worth dates back to Jeremy Bentham (Bentham, 1789/1907), who argued that “the question is not, Can they *reason*? nor, Can they *talk*? but, Can they *suffer*?” (“Limits Between Private Ethics and the Art of Legislation,” note 122). Psychologists have corroborated Bentham's point by finding that the perceived capacity for subjective experience—including the capacity for pain—partially underlies the extent to which entities are deemed worthy of moral concern (Waytz, Gray, Epley, & Wegner, 2010). If perceived pain sensitivity partially underlies moral concern, reducing animals' capacity to suffer might facilitate eating them.

Several recent studies have found this to be the case. We (Bastian, Loughnan, et al., 2012) asked people to rate the extent to which each of 32 animals possessed a set of mental capacities and their willingness to eat each animal. We found a strong negative relationship between attributed mind and edibility. Eating a more “mindful” animal was also judged as more morally wrong and more subjectively unpleasant. These findings hold across diverse samples, with other research showing that American, Canadian, Hong Kong Chinese, and Indian consumers report less willingness to eat “mindful” animals and more disgust at the thought of doing so (Ruby & Heine, 2012).

These findings may reflect that omnivores reduce animals' minds to justify the fact that they are eaten. Alternatively, omnivores may simply choose to eat “mindless” animals. To test whether animals are viewed as relatively lacking minds *because* they are eaten, we asked American participants to rate the extent to which a tree kangaroo was capable of feeling pain and deserved moral concern (Bratanova, Loughnan, & Bastian, 2011). Participants were told either that the animal was considered food by locals in Papua New Guinea or simply that it was an animal living there. Even though participants had never eaten tree kangaroo and did not belong to the group that did, tree kangaroos framed as “food animals” were judged less capable of suffering and less deserving of moral concern. Simply being categorized as food undermines an animal's perceived mind.

The perception of animals as relatively mindless may also contribute to the belief that they are dissimilar to

humans. Plous (1993) showed that an animal's perceived capacity to experience pain was strongly related to its perceived similarity to humans. People not only judge humanlike animals as more pain sensitive but also experience greater autonomic arousal when watching them being mistreated (Plous, 1993) and recommend harsher sentences for people who abuse humanlike animals (Allen et al., 2002). By implication, seeing an animal as dissimilar should dampen our emotional reactions to its suffering. Indeed, people who see animals as dissimilar to humans attribute them lesser minds and consequently see them as less worthy of moral concern (Bastian, Costello, Loughnan, & Hodson, 2012). This decreased moral concern may be reflected in an increased willingness to allow animals to be harmed (e.g., for meat or for entertainment; Bastian, Costello, et al., 2012).

Attributing animals lesser minds and reducing their perceived capacity to suffer is a powerful means of resolving the meat paradox. Another, hitherto unexamined, possibility is that people might accept that animals can suffer but deny that animals suffer when humanely killed. By limiting animals' capacity to suffer, people can judge them less worthy of moral concern. Interestingly, reducing the perceived minds of meat animals occurs when people are *not* seeking to justify their own consumption—for example, when they categorize an animal as food (Bratanova et al., 2011) or when they contemplate the differences between humans and animals (Bastian, Costello, et al., 2012). These findings indicate that the psychological processes that support eating animals cannot be reduced to self-serving, motivated reasons; how we construe animals and the human/animal boundary is critical to our willingness to eat them. In short, the way animals are perceived is intimately tied to eating meat.

The Eating

Personal attributes and perceptions of animals are relatively independent of the act of eating. However, it is precisely in this moment—when a person is eating or intending to eat—that we would expect the meat paradox to require urgent resolution. Research has begun to examine the dynamic processes that facilitate meat eating.

In one study, we (Loughnan, Haslam, & Bastian, 2010) randomly assigned participants to consume either beef or nuts and, subsequently, to report their moral concern for animals and rate a cow's capacity to suffer. We found that participants who had recently consumed beef, but not nuts, restricted their moral concern for animals and rated the cow as less capable of suffering. This response may have served to alleviate any post hoc negative feelings participants experienced as a result of eating meat. A similar emotion-regulation process may occur in anticipation of eating meat. In another study, participants came

to the laboratory and were led to expect to sample meat or fruit (Bastian, Loughnan, et al., 2012). Participants who anticipated meat consumption attributed cows and lambs lesser minds, consistent with previous research showing that both situational and chronic meat consumption lowers mind attribution (Bilewicz, Imhoff, & Drogosz, 2011; Loughnan et al., 2010). Importantly, people in the meat condition who ascribed diminished mentality to the animals reported less negative emotional arousal when anticipating meat consumption. This finding suggests that people can alleviate unpleasant feelings aroused by meat consumption by attributing animals lesser minds.

The tension omnivores experience when reminded that their behavior may not match their beliefs and values, and the resolution of this tension by changing those beliefs, fits with the theory of cognitive dissonance (Harmon-Jones & Mills, 1999). Whereas some people (e.g., vegetarians) reduce this negative state by changing their actions, others may do so by strategically changing their beliefs, specifically about animals' minds, suffering, and moral standing. Dissonance theory could help explain why the act of eating, which makes the meat paradox highly salient, motivates these psychological changes.

Conclusions

Eating animals has been commonplace for millennia. Nevertheless, it can generate a significant tension between people's aversion to animal harm and their desire for meat. We have examined some factors that enable people to negotiate this paradox. Meat eaters tend to care less about animal welfare, to value masculinity, and to accept social hierarchy and inequality. They tend to reduce mind attribution to animals and see them as dissimilar to humans. In preparation for eating meat, and after it, they attribute diminished mental capacities to animals. These factors combine to reduce animals' moral standing, making their passage from farm to fork less troubling. There are a number of pathways through which people may adjust their perceptions of animals in ways that appear more consistent with their consumption of them. One putative pathway is that people change their perceptions to reduce negative affect associated with the act of meat eating. Still, no work has directly captured these negative affective reactions to the tension between concern for animal suffering and consumption of animals. Future research could employ physiological or neuroimaging measures of affective reactions (cf. Plous, 1993) that would allow researchers to capture rapid, nonconscious, or disavowed emotions associated with meat.

Although we believe that the psychology of eating animals is a worthy topic in its own right, it can also be viewed as an extended case study on human morality. Psychological approaches to understanding morality

have typically focused on domain-general cognitive and emotional processes (e.g., Greene, 2007; Haidt, 2001) and broad, encompassing moral categories (e.g., Haidt & Joseph, 2007) or dimensions (e.g., Gray, Young, & Waytz, 2012; Janoff-Bulman, Sheikh, & Hepp, 2009; for a discussion, see Rozin, 2006). By examining a single moral behavior, we can illuminate how emotions (pleasure, disgust, guilt), cognitions (categorization, attribution, justification), and personality characteristics (values, beliefs, identities) combine when people face everyday moral problems. In doing so, researchers have shown how emotion regulation, mind perception, and moral judgment are intimately connected. Adopting a similar approach to understanding other domains of everyday morality—narrow in its focus but deep in its attention to the complexity of the phenomenon—may prove equally fruitful.

In 1996, Paul Rozin made an appeal in this journal for psychologists to take meat eating seriously (Rozin, 1996). The field has heeded his call and responded by laying bare many of the psychological factors at play when people eat meat. We now have a clearer idea about who eats animals, what they think of animals, and how their psychology changes when they engage in meat eating. In doing so, we have begun to unearth the psychological roots of an ancient, widespread, and increasingly controversial behavior.

Recommended Reading

- Bastian, B., Loughnan, S., Haslam, N., & Radke, H. (2012). (See References). An experimental study of meat eating and emotion.
- Rozin, P. (1996). (See References). A review of meat and morality.
- Ruby, M. (2012). (See References). A review of vegetarianism.

Declaration of Conflicting Interests

The author declared no conflicts of interest with respect to the authorship or the publication of this article.

References

- Allen, M., & Baines, S. (2002). Manipulating the symbolic meaning of meat to encourage greater acceptance of fruits and vegetables and less proclivity for red and white meats. *Appetite*, *38*, 118–130.
- Allen, M., Hunstone, M., Waerstad, J., Foy, E., Hobbins, T., Wikner, B., & Wirrel, J. (2002). Human-to-animal similarity and participant mood influence punishment recommendations for animal abusers. *Society & Animals*, *10*, 267–284.
- Allen, M., Wilson, M., Ng, S., & Dunne, M. (2000). Values and beliefs of vegetarians and omnivores. *Journal of Social Psychology*, *140*, 405–422.
- Altemeyer, B. (1981). *Right-wing authoritarianism*. Winnipeg, Canada: University of Manitoba Press.
- Amato, P., & Partridge, S. (1989). *The new vegetarians: Promoting health and protecting life*. New York, NY: Plenum Press.
- American Pet Products Association. (2013). *U.S. pet industry spending figures and future outlook*. Retrieved from http://www.americanpetproducts.org/press_industrytrends.asp
- Bastian, B., Costello, K., Loughnan, S., & Hodson, G. (2012). When closing the human-animal divide expands moral concern: The importance of framing. *Social Psychological and Personality Science*, *36*, 100–107.
- Bastian, B., Loughnan, S., Haslam, N., & Radke, H. (2012). Don't mind meat? The denial of mind to animals used for human consumption. *Personality and Social Psychology Bulletin*, *38*, 247–256.
- Bentham, J. (1907). *An introduction to the principles of morals and legislation*. Oxford, England: Clarendon Press. (Original work published 1789). Retrieved from <http://www.econlib.org/library/Bentham/bnthPMLCover.html>
- Bilewicz, M., Imhoff, R., & Drogosz, M. (2011). The humanity of what we eat: Conceptions of human uniqueness among vegetarians and omnivores. *European Journal of Social Psychology*, *41*, 201–209.
- Bratanova, B., Loughnan, S., & Bastian, B. (2011). The effect of categorization as food on the perceived moral standing of animals. *Appetite*, *57*, 193–196.
- Fessler, D., & Navarrete, C. (2003). Meat is good to taboo: Dietary proscriptions as a product of the interaction of psychological mechanisms and social processes. *Journal of Cognition and Culture*, *3*, 1–40.
- Food and Agriculture Organization of the United Nations. (2013). *FAOSTAT food supply—livestock and fish primary equivalent per capita* [Data set]. Retrieved from <http://faostat3.fao.org/faostat-gateway/go/to/download/C/CL/E>
- Gray, K., Young, L., & Waytz, A. (2012). Mind perception is the essence of morality. *Psychological Inquiry*, *23*, 101–124.
- Greene, J. (2007). Why are VMPFC patients more utilitarian? A dual-process theory of moral judgment explains. *Trends in Cognitive Sciences*, *11*, 322–323.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, *108*, 814–834.
- Haidt, J., & Joseph, C. (2007). The moral mind: How five sets of innate intuitions guide the development of many culture-specific virtues, and perhaps even modules. In P. Carruthers, S. Laurence, & S. Stich (Eds.), *The innate mind* (Vol. 3, pp. 367–391). New York, NY: Oxford University Press.
- Harmon-Jones, E., & Mills, J. (1999). *Cognitive dissonance: Progress on a pivotal theory in social psychology*. Washington, DC: American Psychological Association.
- Herzog, H. (2010). *Some we love, some we hate, some we eat: Why it's so hard to think straight about animals*. New York, NY: Harper Collins.
- Janoff-Bulman, R., Sheikh, S., & Hepp, S. (2009). Proscriptive versus prescriptive morality: Two faces of moral regulation. *Journal of Personality and Social Psychology*, *96*, 521–537.
- Joy, M. (2010). *Why we love dogs, eat pigs, and wear cows: An introduction to carnism*. San Francisco, CA: Conari Press.
- Lea, E., & Worsley, A. (2003). Benefits and barriers to the consumption of a vegetarian diet in Australia. *Appetite*, *6*, 127–136.
- Loughnan, S., Haslam, N., & Bastian, B. (2010). The role of meat consumption in the denial of mind and moral status to meat animals. *Appetite*, *55*, 156–159.

- Plous, S. (1993). Psychological mechanisms in the human use of animals. *Journal of Social Issues, 49*, 11–52.
- Rose, L., & Marshall, F. (1996). Meat eating, hominid sociality, and home bases revisited. *Current Anthropology, 37*, 307–338.
- Rothgerber, H. (2013). Real men don't eat (vegetable) quiche: Masculinity and the justification of meat consumption. *Psychology of Men & Masculinity, 14*, 363–375.
- Rozin, P. (1996). Towards a psychology of food and eating: From motivation to module to model to marker, morality, meaning, and metaphor. *Current Directions in Psychological Science, 5*, 18–24.
- Rozin, P. (2004). Meat. In S. Katz (Ed.), *Encyclopedia of food* (pp. 666–671). New York, NY: Scribner.
- Rozin, P. (2006). Domain denigration and process preference in academic psychology. *Perspectives on Psychological Science, 1*, 365–376.
- Rozin, P., Hormes, J., Faith, M., & Wansink, B. (2012). Is meat male? A quantitative multimethod framework to establish metaphoric relationships. *Journal of Consumer Research, 39*, 629–643.
- Rozin, P., Markwith, M., & Stoess, C. (1997). Moralization and becoming a vegetarian: The transformation of preferences into values and the recruitment of disgust. *Psychological Science, 8*, 67–73.
- Ruby, M. (2012). Vegetarianism: A blossoming field of study. *Appetite, 58*, 141–150.
- Ruby, M., & Heine, S. (2011). Meat, morals, and masculinity. *Appetite, 56*, 447–450.
- Ruby, M., & Heine, S. (2012). Too close to home. Factors predicting meat avoidance. *Appetite, 59*, 47–52.
- Ruby, M., Heine, S., Kamble, S., Cheng, T., & Waddar, M. (2013). Compassion and contamination: Cultural differences in vegetarianism. *Appetite, 71*, 340–348.
- Sidanius, J., & Pratto, F. (2001). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge, England: Cambridge University Press.
- Singer, P. (1975). *Animal liberation: Towards an end to man's inhumanity to animals*. New York, NY: HarperCollins.
- Stanford, C. (1999). *The hunting apes: Meat eating and the origins of human behavior*. Princeton, NJ: Princeton University Press.
- Tischler, J. (2012). A brief history of animal law, part II (1985–2011). *Stanford Journal of Animal Law and Policy, 27*, 57–59.
- Waytz, A., Gray, K., Epley, N., & Wegner, D. (2010). Causes and consequences of mind perception. *Trends in Cognitive Sciences, 14*, 383–388.]