Farm Animal Suffering Leaves a Bad Taste In Your Mouth

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New research shows believing an animal suffered changes the way its meat tastes.

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The grip of meat on the human psyche is as powerful as heroin. Roughly 98% of Americans eat animal flesh, a figure which has not dropped appreciably for 30 years. Even the great majority of vegetarians eventually revert from tofu back to tuna and T-bones. While the moral, medical, and environmental arguments against meat are rock-solid and wildly known, per capita consumption of meat has declined only slightly in the United States in recent years. And as Marta Zaraska shows in her new book *Meathooked*, the growth of meat consumption worldwide is staggering.

When I was conducting research for my book on the psychology of human-animal relationships, I commonly encountered flagrant inconsistencies related to meat consumption. For example, I once interviewed a woman about her life as a vegetarian while she was munching on a tuna fish sandwich. And a large national study by the United States Department of Agriculture found that two-thirds of self-described vegetarians had eaten some form of animal flesh the day they were surveyed.

These types of blatant contradictions (along with my own meat hypocrisy) led me to conclude that our ability to both simultaneously eat animals and love them ("the meat paradox") runs counter to a fundamental concept in social psychology—the theory of cognitive dissonance. This is the notion that inconsistencies in beliefs and behavior result in an unpleasant mental state, which then motivates us to bring our ideas and behaviors into alignment.

I may, however, have been premature in arguing that meat-eating is exempt from cognitive dissonance. Several researchers have reported that meat-eaters do go through unconscious mental gyrations, which help absolve their meat-related guilt. For example, one study found that the act of eating a piece of beef jerky caused people to devalue the moral standing of cows. And University of Queensland psychologist Brock Bastian and his colleagues found that when people were told they would be eating beef or lamb as part of a taste test, they rated the mental capacities of cows and sheep lower than a control group who thought they were going to consume fruit.

**Does Animal Suffering Reduce The Pleasure of Meat?**

These studies suggest eating meat causes people to be less concerned for the welfare of farm animals. But could the system work the other way as well? Could differing beliefs about how an animal was raised actually affect the experience of eating flesh? This question was addressed in a series of clever experiments by Eric Anderson of Tufts University and Lisa Feldman Barrett of Northeastern University. Their results have now been published in the journal *PLoS ONE*.

In the first study 117 university students rated two samples of meat. Each sample consisted of small pieces of organic beef jerky placed on a white plate. Before tasting the meat, the subjects read a statement about how the cows had been raised. In the "humane farm" condition, the beef jerky was described as coming from cows that were raised on an organic family farm and never fed antibiotics or...
growth hormones. The description of the “factory farm” condition claimed that the animals were confined in small pens where they could not lay down and were given antibiotics and growth hormones. The participants rated the meat on 100 point scales on appearance, smell, taste, and general enjoyment. They also indicated how much they would be willing to pay for a six ounce package of the beef jerky. As I am sure you have figured out, the samples described as “humane” and “factory farm” actually contained identical pieces of organic beef jerky.

Did the subjects perceive them differently? Absolutely…

As shown in this graph, the participants rated the meat they thought was from a factory farm lower than the presumed humanely farm meat in appearance, smell, taste, and enjoyment. They also said they would pay less for it, and they ate less of the factory farm samples.

**Factory Farmed Meat Tastes Worse, But Humanely Raised Meat Does Not Taste Better**

The researchers replicated these findings in a second study. The sample of subjects was larger and more diverse than in the first experiment: 248 Northeastern University students, staff, faculty, and visitors who were walking across campus. After reading one of two descriptions of how the cows were raised, each participant tasted a piece of roast beef presented on a toothpick. Then they indicated how much they liked the meat on a 100 point scale. In this study, the humane and factory farm descriptions did not include references to growth hormones or antibiotics. The researchers also included “no description” control group as well as a “factory farm plus” condition which also said the cattle production facility made the meat more affordable.

The results were clear. The roast beef in both the “factory farm” and the “factory farm plus” conditions were rated lower in tastiness than meat from the “humane farm.” However, being described as humanely
raised did not make the roast beef taste any better than the meat in the no-description control group. This finding suggests that portraying meat as raised in cruel conditions makes meat taste worse, but thinking that was humanely raised does not improve meat's appeal.

**How Beliefs Affect Flavor**

The final study is the kicker. In this experiment, the researchers wanted to tease out which specific aspects of the flavor of meat were affected by beliefs about how animals were raised.

The subjects were 114 undergraduate psychology students. They evaluated the sensory properties of identical pieces of ham they believed were raised under different conditions. Each student rated a “humane farm” and a “factory farm” piece of ham as well as a control sample which had no description at all. They were told the humanely raised pigs were allowed to roam free on grassy pastures with other pigs. The subjects were informed that the factory farm pigs were isolated in indoor concrete pens so small the animals could not lie down. These descriptions were accompanied by a photo of either the happy pig (humane farm) or sad pig (factory farm).

The subjects rated six sensory properties of the ham on a 100 point scale – savory, salty, sweet, bitter, fresh, and greasy. They also indicated how much they would be willing to pay for a pound of the ham. And they were told they could eat as much of the meat as they wanted.

![Sensory Ratings Graph](source: Graph by Hal Herzog)
This graph shows the flavor ratings of the samples in the humane farm and in the factory farm conditions. No differences were found in the sweetness, bitterness, or sourness of the meat. However, ham the subjects thought came from animals treated cruelly was rated as less savory and less fresh, and saltier and greasier than pigs they thought were raised on free-range pastures with their pals.

In addition, the subjects ate more of the humane ham, and they said they would be willing to pay more for a pound of humane ham ($6.63) than for the factory farm ham ($4.61).

**Emotions and Beliefs Affect Our Perceptions of the World**

Here are the take-home messages from these studies. First, they demonstrated that our beliefs about how animals are treated can affect the experience of eating them. Specifically, being told that meat came from a factory farm made it taste saltier, greasier, and less fresh. And these beliefs affect behavior. Participants in the study ate less of the cruel meat and were willing to pay more for humanely raised meat.

The second message concerns the role of emotion ("affect") in the way we perceive the world. Anderson and Barrett argue that negative "affective beliefs" have more impact than positive affective beliefs on our experiences and behaviors. This idea would explain why thinking a cow had a great life did not increase the pleasure people got from eating a slice of roast beef, but thinking the cow had a miserable life definitely decreased its culinary appeal. Further, the research demonstrates the impact that "top down" mental processes (beliefs) can have how we perceive the world.

As my fellow PT Blogger Marc Bekoff once told me, “The reason I like studying our relationships with animals is because they tell us a lot about ourselves.” Amen…

**References**


