

The Meat Paradox: Investigating Cognitive Dissonance and Strategies to Oppose It

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ABSTRACT

The conflict between the belief that eating meat holds harmful effects, and the actual behaviour of eating meat, can lead to cognitive dissonance. The present study aims to investigate the dynamics of this dissonance, and ways to oppose it. To test whether omnivores experience cognitive dissonance, participants filled out an Animal Care Scale and an Animal Consumption Scale. A Pearson R correlational analysis was used to determine whether cognitive dissonance was present. There was no significant correlation between the ACaS and the ACoS. The differences between groups were however significant. Furthermore, several strategies to oppose cognitive dissonance have been identified.

Keywords

meat paradox, cognitive dissonance, avoidance

INTRODUCTION

Over the last decade, adhering to a vegan or vegetarian diet has become increasingly popular (Allès et al., 2017). According to polls and surveys administered by vegetarian societies, approximately 1 to 10 percent of the Western population reports to follow one of these diets (Allès et al., 2017). Health and ethics seem to be the two most important incentives for choosing to adopt a vegan or vegetarian diet (Christopher, Bartkowski, & Haverda, 2018). According to a study conducted by Christopher et al. (2018), the three most prevalent reasons for opting for a meatless diet are: “concerns about animal welfare, personal health, and environmental sustainability”. Within the same study it was found that the ethical aspect is often based on the belief that animals have a moral value that is similar to that of humans, and should therefore not be victim to pain or suffering for the sole purpose of human consumption. The present study focuses specifically on coping strategies for meat eating

induced cognitive dissonance. Hence, the following research question will be researched: What strategies do individuals who adhere to carnism (omnivores) use to deal with the cognitive dissonance that often comes along with eating meat? During this research project, there will be a focus on three specific groups: individuals who adhere to carnism, vegetarianism, and veganism. Any individual that does include meat in their diet will be defined as an individual who adheres to carnism and referred to as omnivore. Individuals who do not include meat in their diet, but do however include other animal-based products in their diets, such as for example eggs and milk, are referred to as someone who adheres to vegetarianism. People that totally exclude animal products from their diets, are referred to as individuals that follow a vegan diet. So, they for example do refrain from eating eggs and milk. The following definition of cognitive dissonance will be used for this research project: “a state of unpleasant tension that people experience when they hold contradictory attitudes or when their behaviour contradicts their stated attitudes, especially if the inconsistency distresses them” (Kalat, 2017).

Even though many people are aware of the harmful effects of eating meat to animal welfare, the environment etc., they often refuse to cease eating meat due to social pressure, and due to the fact that they enjoy eating it (Ruby, 2012). The conflict between the belief that eating meat holds negative effects, and the actual behaviour of eating meat, can lead to cognitive dissonance. A popular name that is often used for this discrepancy is the ‘meat paradox’ (Buttler & Walther, 2018). In order to resolve cognitive dissonance, an individual has two options: one can either change his or her behaviour, and/or change his or her perception on eating meat and its consequences. Research has shown that individuals who engage in eating meat, use moral disengagement as a strategy to cope with cognitive dissonance (Buttler & Walther, 2018). Therefore, it is interesting to focus specifically on how moral disengagement strategies are being

used to resolve the internal conflict that we call the 'meat paradox'. For example, some people believe that animals are fundamentally different than humans which helps people cope with the uncomfortable feeling that arises due to cognitive dissonance (Loughnan, Bastian, & Haslam, 2014). Kunst & Haugestad (2018), suggest that people who engage in eating meat, avoid illustrations of unprocessed meat in order to make the cognitive dissonance less salient. They argue that illustrations of unprocessed meat create a link between meat and its animal origin which induces negative feelings (Kunst & Haugestad, 2018).

There are three aims of the present study. The first is to examine whether omnivores experience cognitive dissonance because of the inclusion of meat in their diets. As mentioned before, Ruby (2012) suggests that people who include meat in their diet do experience cognitive dissonance. Therefore, the hypothesis that will be tested, is that these individuals experience cognitive dissonance as a result from including meat in their diet. The second aim, will be to identify what strategies omnivores use to deal with the cognitive dissonance that often comes along with eating meat. Based on previous findings, it is hypothesized that one or more strategies will be used. The specific strategies used, will be explored in the present study. The third aim, is to specifically test Kunst and Haugestad's (2018) argument that illustrations of unprocessed meat can be linked to avoidance. It is hypothesized that participants who include meat in their diets spent significantly less time on a screen with an illustration of animal maltreatment, than participants who adhere to a vegetarian or vegan diet.

METHODS

The measuring instrument for this study was a novel questionnaire developed for the purpose of this study. The part of the questionnaire that was relevant for this research project, was composed of four different sections. The first section, will be referred to as the Animal Care Scale (ACaS). This scale consisted of three different questions that were all intended to measure the same construct. The construct that the scale intended to measure was to what extent the participant was concerned with the well-being of animals. An example of one of the questions was: 'How important is it to you that animals live long and happy lives?' The participant can answer these questions by choosing

a number between zero and one hundred, with zero being 'completely unimportant' and one-hundred being 'extremely important'. The second section, will be referred to as the Animal Consumption Scale (ACoS). This scale also consisted of three different questions that intended to measure the same construct. An example of one of the questions was: 'To what extent do you include meat in your diet?' The construct that the scale intended to measure was how much the participant included animal products in his/her diet. The third section, consisted of only one question, and was only shown to participants who adhered to an omnivorous or vegetarian diet. This question focused on the conflict of belief and behaviour, between buying animal products and caring about animal welfare. The purpose of this question was to identify strategies that participants might use to oppose possible cognitive dissonance. The participant was specifically asked how he/she made sense of the conflict between buying animal products and caring about animal welfare. The fourth section of the questionnaire, showed an illustration of animal maltreatment in a meat industry setting. Then, the time the participant spent looking at the illustration was measured. The purpose of this section was to test the hypothesis that is related to avoidance. If omnivores would on average spend significantly less time looking at the screen with the illustration, compared to individuals who adhere to vegetarianism or veganism. Then, this would support the hypothesis omnivores use avoidance as a strategy against meat eating induced cognitive dissonance. As less time spent looking at the illustration, would indicate higher levels of avoidance.

To statistically analyse the data, three different methods of analysis were used. Two of these analyses were performed by SPSS (statistical program). One analysis required the development of a new method that would quantify the results of the open ended question due to a lack of a psychometrically validated alternative. This analysis mainly concerned the aim of identifying possible strategies to oppose cognitive dissonance. The participants have been asked the following question: "How do you deal with the discrepancy between you caring about animals and buying animal products?" As this question was not relevant for participants who adhere to a vegan diet, their answers have been excluded from this analysis. The method designed for this analysis

relied on frequency count. Every answer was first carefully read, after which a strategy used by the respondent was identified. One answer might for example contain multiple strategies, whereas some might not mention any strategy at all. To investigate the first hypothesis, whether cognitive dissonance was present in participants who reported to be omnivore, the analysis focused on whether there was a significant correlation

RESULTS

SPSS calculated the scores of both the ACaS and the ACoS by calculating the mean scores of their questions per participant. SPSS performed a Pearson R correlational analysis between the ACaS and ACoS scores which led to the following results: there was a negative non-significant correlation between the ACaS and the ACoS, $r = -0.3$, $p = 0.857$. According to the cutoff points described by Schober, Boer and Schwarte (2018), the correlation can be interpreted as a weak correlation.

Subsequent to the investigation of the existence of cognitive dissonance in the group who reported to follow an omnivorous diet, cognitive dissonance scores were calculated for every participant in every group. In order to calculate the cognitive dissonance scores, for every participant, the ACoS was subtracted from the ACaS. The difference in scores was then a measure of cognitive dissonance. The higher the difference, the less cognitive dissonance would be present. This might lead to confusion. Therefore the scores have been inverted. This means that all the difference scores have been subtracted from 100. The scores that were initially negative, have been computed into their opposite positive scores. The results of these computations are the cognitive dissonance scores. An overview of these results per group can be found in Figure 1. Afterwards, a one-way ANOVA was performed to see whether the three groups (omnivores, vegetarians, and vegans) differed significantly in their cognitive dissonance scores. The result of the ANOVA was that there is a significant difference in cognitive dissonance scores between the three relevant groups, $F(2, 81) = 20.36$, $p < 0.001$. On average, participants who reported to adhere to an omnivorous diet, had a lower cognitive dissonance score ($M = 48.88$, $SD = 29.64$) than participants who reported to adhere to a vegetarian ($M = 38.99$, $SD = 22.05$) or vegan diet ($M = 12.16$, $SD = 15.89$).

between the scores on the ACaS and the ACoS. SPSS was used to calculate the Pearson R correlation, and determined whether the correlation is significant. A significant Pearson R correlation would support the hypothesis that omnivores experience cognitive dissonance, based on the discrepancy between the inclusion of meat in their diet and concern about animal welfare.

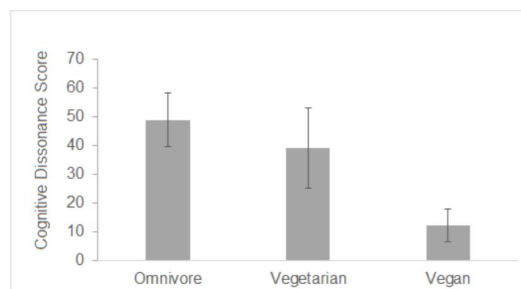


Figure 1. Mean cognitive dissonance scores

The second aim of this study was to identify what strategies omnivores use to deal with the cognitive dissonance that often comes along with eating meat. Every strategy has been listed in Table 1 with its frequency. A total of 41 responses have been analysed. One participant's response was deemed inconclusive, and therefore excluded from the analysis.

Table 1. Thoughts and strategies used to reduce cognitive dissonance

Strategy	Frequency
Only buy certain animal products	24
Consume fewer animal products	9
Thought suppression	6
Animal products are a necessity	4
Being vegetarian is enough	3
Animal would otherwise not have lived	3
Habit	2
One person will not make a difference	2
Culture	1
Convenience	1
Respect and thank animals	1
Animal has already been killed	1

The third aim of this study, was to test whether illustrations of unprocessed meat can be linked to negative feelings. To test this hypothesis, an ANOVA has been performed to compare the average time spent in seconds, on the screen with the illustration of animal maltreatment, of the three relevant groups. On average, there was no statistically significant difference in time spent on the screen containing the illustration between the three relevant groups, $F(2, 44) = 0.79$, $p = 0.46$.

CONCLUSION

The first hypothesis focuses solely on testing whether this 'meat paradox' exists. A high score

on both scales would indicate cognitive dissonance, as the individual would then experience a conflict between highly caring about animals and consuming animals. However, the Pearson R correlation was weak according to the cutoff points described by Schober et al. (2018), and insignificant, $r = -0.3$, $p = 0.857$. This result does not support the existence of the 'meat paradox' in the sample that has been tested. Even though there is no evidence from the correlational analysis to support the first hypothesis, the differences between groups in cognitive dissonance scores do support the existence of the 'meat paradox'. A higher cognitive dissonance score means a smaller difference between caring about animals (ACaS) and consuming meat (ACoS). The smaller the difference, the bigger the conflict, which leads to more cognitive dissonance. The group of participants that reported to include meat in their diets had a significantly higher cognitive dissonance score when compared to the other two groups that did not. This evidence therefore supports the existence of the 'meat paradox'.

The second goal of the study was to identify what strategies omnivores use to deal with the cognitive dissonance that often comes along with eating meat. From the 41 answers that have been analysed, twelve strategies that seem to oppose cognitive dissonance have been identified.

The third goal of this research was to specifically test Kunst and Haugestad's (2018) argument that illustrations of unprocessed meat can be linked to negative feelings and thus avoidance. If omnivores would on average spend significantly less time looking at a screen with an illustration of animal maltreatment in a meat industry context, then this would support the hypothesis that omnivores use avoidance as a strategy against meat eating induced cognitive dissonance. There was no statistically significant difference in time spent looking at the illustration between participants who reported to follow an omnivorous diet, and participants who reported to follow a vegetarian or vegan diet, $F(2, 44) = 0.79$, $p = 0.46$. Therefore, there is currently no evidence to support the third hypothesis.

All in all, even though the correlational analysis with regard to the first hypothesis was not significant. It can be argued that this study does provide some evidence for the existence of the 'meat paradox'. The significant differences in the between group analyses seem to be the most important piece of evidence in this regard.

ROLE OF THE STUDENT

Christophe Romein was an undergraduate psychology student, working under the supervision of Jason Lee. The overarching topic (veganism) was proposed by the supervisor. The specific topic (meat paradox), was proposed by the student. The methods, questionnaires, statistical analysis, and writing, were all done by the student.

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