## Stick to the Meat You Know - The Role of Status Quo Bias and Moral Disengagement

# in Sustaining Meat Consumption

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#### Abstract

Despite numerous adverse consequences and concerns about its morality, meat consumption remains a valued and almost universally implemented practice. This thesis therefore aims to investigate the reasons that perpetuate this inertia surrounding meat consumption, with emphasis on understanding the role of status quo bias and moral disengagement. To this end, we conducted an online survey in which participants were presented with a text highlighting the negative effects of meat consumption. Subsequently, we asked respondents to rate the persuasiveness of the arguments presented to them and to indicate what they believed to have motivated the author to write the text. Results suggested the presence of moral disengagement processes, as omnivorous participants rated the arguments presented to them as significantly less convincing than meat-avoiding participants. Findings for status quo bias were inconclusive but displayed interaction effects, indicating that participants with high meat consumption reported perceiving more selfish motives in the author and reduced persuasiveness when they were higher on status quo bias. Our findings thus illustrate the influence of individual differences and the moderating role of status quo bias on moral disengagement. Limitations and theoretical implications, such as the need for targeted interventions to improve persuasion outcomes, were discussed.

*Keywords:* Meat Consumption, Status Quo Bias, Moral Disengagement, Motivated Reasoning

# Stick to the Meat You Know: The Role of Status Quo Bias and Moral Disengagement in Sustaining Meat Consumption

"Why do we breed pigs to eat them?"

"I don't know. I never thought about it. I guess, because it's just the way things are." (Joy, 2020, p. 16)

The consumption of meat is a pervasive, esteemed, and central practice of most Western cultures. However, it comes at a substantial cost to the environment and public health as meat production is a major contributor to anthropogenic climate change (Pathways towards Lower Emissions, 2023) and its consumption has been linked to various health concerns, including increased risks for several types of cancer (Eshel & Martin, 2006), cardiovascular diseases (Bernstein et al., 2010), and overall mortality (Clark et al., 2019).

From a psychological perspective, meat consumption is of particular interest as it provides a highly accessible context for investigating how individuals navigate intrapersonal moral conflicts (Rothgerber, 2020). Many individuals experience a deep affection towards animals, children are taught to respect animals, and pets are regarded by many as family members (Serpell, 1986; Siegel, 1993). Nevertheless, most of Western society is aware that animals raised in the livestock industry are made to endure deplorable living conditions until they are inevitably subjected to slaughter. When confronted with this contradiction, which has been termed the 'meat paradox' (Loughnan et al., 2010), for example through exposure to animal welfare information or the presence of vegetarians/vegans (i.e., veg\*ans) most omnivores experience a form of cognitive dissonance (Rothgerber, 2014; Weingarten & Lagerkvist, 2023). This phenomenon is known as meat-related cognitive dissonance (MRCD; Rothgerber, 2020), and is the result of individuals' dietary choices being in conflict with their general attitudes towards animal suffering. In general, cognitive dissonance can be resolved by changing either the conflicting behavior or the attitudes surrounding it (Festinger, 1957). However, as evidenced by the low rates of veg\*ans in Western society (Ruby, 2012), e.g., approximately 3% of US Americans (Inc, 2023), MRCD appears to be far more often resolved by altering cognitive processes than by implementing concrete behavioral changes. Therefore, this paper sets out to provide insight into the processes that are utilized to achieve this effect and into the factors that motivate omnivores to undertake these cognitive efforts.

#### **Mainstays of Perpetuation**

#### Moral Disengagement and Motivated Reasoning

One cognitive tool that has been proposed to aid in the dispersion of cognitive dissonance and evasion of guilt is motivated reasoning, which is the tendency to interpret stimuli in a manner that supports a priori-favored conclusions (Kunda, 1990, Rothgerber, 2020). One concept that is closely connected to this tendency is moral disengagement. Moral disengagement is theorized to permit individuals to engage in injurious behaviors that they would otherwise deem inhumane through the selective disabling of self-regulatory processes that would typically prevent them from considering such actions (Bandura, 1999). This disabling can work through multiple mechanisms that collectively distort perceptions of the harmful conduct itself, its consequences, or its victims, in such a manner that self-directed moral reprimand can be avoided. This biased interpretation of reality can be implemented by diffusing responsibility, blaming the victims (Bandura, 1999), or maintaining that resulting injuries are "not really an injury at all" (Sykes & Matza, 1957, as cited in Rothgerber, 2020, p. 6).

### Consequence neglect

Meat consumption is a virtually ubiquitous and almost universally adopted practice. However, despite its huge following, there are no conspicuous values attached to the practice of meat consumption, or 'carnism' as it has been described in the literature (Joy, 2020). Its ideology largely exists outside of conscious public awareness, and its followers are rarely required to identify themselves as such (Joy, 2020). As one author has put it, "the commodification of some species of animals has become such a part of our cultural fabric it becomes invisible" (Bryant et al., 2022, p. 11).

It is important to acknowledge the role of the meat industry and the historically entrenched societal influence in this, as current food systems and dietary culture are substantially directed at facilitating this inconspicuousness. In Western countries, livestock animals are treated as objectified commodities that are not to be seen or engaged with by the public (Plous, 2003). Their abattoir is placed in physically isolated locations (Rothgerber, 2014), there is disproportionately little public media coverage of their living conditions (Bryant et al., 2022; Plous, 2003), and even in the vernacular, artificially created semantic distinctions (e.g., "beef", "pork") aid consumers in dissociating meat from its animal origins (Kunst & Hohle, 2016). Consequently, research has shown that for Western consumers, the removal of this dissociation has been found to be especially influential in mitigating their willingness to eat meat (Kunst & Palacios Haugestad, 2018). However, as omnivorous consumers are motivated to avoid potential triggers of MRCD, practices that conceal harm and reduce victim visibility are unlikely to be challenged as they are highly conducive to moral disengagement (Bandura, 1999). After all, as long as the acknowledgment of the occurrence of harm can be avoided, there is no need to assign blame.

Moreover, animal welfare concerns and information-seeking behavior are likely to have a bidirectional relationship (Cornish et al., 2016), which could allow many currently unconcerned consumers to maintain the commonly held misconception that animal welfare in livestock production is 'good' (Mayfield et al., 2007). Furthermore, there is compelling evidence that consumers in some instances choose to strategically ignore potentially dissonance-evoking materials (Hestermann et al., 2020; Onwezen & Van Der Weele, 2016). This was demonstrated, for example, in a study by Bell et al. (2017), in which 30% of participants expressed a preference for viewing a completely blank screen over photographs depicting the living conditions of pregnant female hogs in livestock farming.

#### **Conduct Justifications**

However, processes of moral disengagement can extend beyond these more 'apologetic' (Rothgerber, 2013) behaviors that are primarily focused on avoiding the issue. Morally disengaged individuals may subject victims to denigration, dehumanize them, and portray them as unworthy of moral consideration (Bandura, 1999; Rothgerber, 2020) to justify inflicting harm on them. In this line of research, this has been exemplified by omnivorous participants minimizing the extent to which farm animals can be seen as agentic beings (Tian et al., 2016) and denying their capacity to experience pain or suffer in a similar vein to humans (Bastian et al., 2012). Furthermore, meat consumption has been associated with greater endorsement of ideologies centered around hierarchical beliefs and inequality, such as social dominance orientation (Allen et al., 2000; Veser et al., 2015). For proponents of these ideologies, research has shown that justifications for meat consumption have become so accepted that it is no longer perceived as merely a necessary evil but as a consciously chosen means of exercising their perceived human superiority over other species (Dhont & Hodson, 2014). It is therefore predicted that:

Hypothesis 1: Omnivores are motivated to morally disengage when consequences of meat consumption are made salient, whereas veg\*ans are not.

## **Status Quo Bias**

Having established this expected cognitive and behavioral link between meat consumption and moral disengagement, we also want to explore possible explanations for the resistance to change of dietary choices. Our aim is therefore to propose and explore a second factor that is predicted to moderate this relationship, namely, the extent to which individuals are biased towards the status quo. At its core, status quo bias (SQB) is a strong non-rational tendency to preserve the existing state of affairs despite the availability of possibly superior choices (Samuelson & Zeckhauser, 1988). This is probably a tendency that humans are naturally inclined to follow, as the status quo is more visually salient (Miceli & Suri, 2023), and anticipated regret for negative outcomes has been found to be stronger when they are the result of having taken action (Kahneman & Tversky, 1982). Moreover, it is effortless to adhere to, as the uncritical repetition of decisions saves cognitive resources (Dean et al., 2017; Dunn & Risko, 2019). However, this naturally has its drawbacks, as routinization has been found to reduce perceptions of moral relevance (Graça et al., 2016), which may lead to infrequent questioning of the moral rationales behind habitual behaviors, such as dietary choices. For example, as illustrated by the opening quote (Joy, 2020), few people pause to question the moral foundations of the ruthless treatment of animals in the livestock industry.

Furthermore, as prospect theory has shown that individuals' initial reference points are highly influential in decision-making (Kahneman et al., 1991), we believe that SQB will also directly influence motivated reasoning due to loss aversion. According to the probabilistic dominance approach, individuals are only willing to consider alternatives to the status quo when the probability of loss is low (Riella & Teper, 2014), suggesting that loss aversion may be one of the main drivers of SQB. Loss aversion has been shown to lead to suboptimal decision-making and irrational behaviors, such as taking on disproportionate risks to avoid losses. This is because the fear of loss is more potent than the pleasure derived from possible gains (Kahneman et al., 1991). As meat consumption serves as a reference point for many, we thereby believe that the prospect of refraining from meat consumption will be perceived primarily as a multifaceted loss and will consequently elicit strong irrational responses. As meat consumption serves as a reference point for many, we, therefore, believe that the prospect of refraining from meat consumption will be perceived primarily as a multifaceted loss and will consequently elicit strong irrational responses.

#### Social loss

Research suggests that avoiding meat can come at a high social cost, as one of the most commonly perceived barriers to meat reduction is one's social environment (Ruby, 2012) and a perceived lack of social support (Dhont & Ioannidou, 2024; Hodson & Earle, 2018). Furthermore, veg\*ans may be disproportionately evaluated negatively by the omnivorous majority, as illustrated by a study by MacInnis and Hodson (2017) in which they were only surpassed in negative evaluations by individuals struggling with addiction. This effect was exacerbated if they adhered to the diet for ethical reasons and were male, as this likely heightens symbolic threat and MRCD in omnivores (MacInnis & Hodson, 2017).

## Hedonistic and Moral Identity Loss

One of the most commonly cited reasons for omnivores to continue their meat consumption is the hedonic pleasure derived from eating meat (Lea & Worsley, 2003). However, as meat is a central component of a myriad of meals in Western culture (Barrena & Sánchez, 2009) and plays a role in social gatherings and cultural traditions, meat consumption is likely to go beyond a mere preference for meat products but is arguably related to the self-concept of omnivores (Leach et al., 2021). As humans value their moral identity (Aquino & Reed, 2002; Bandura, 1999) and wish to perceive their ingroups as positively distinct (Tajfel, 1978), challenging the moral underpinnings of societal and group norms can be seen as a threat in several respects.

In addition, altering one's moral standards has the potential to challenge individuals' perceptions of societal justice at large (Bryant et al., 2022), due to an increased recognition of unjust suffering that is disregarded by society, and thus left unsanctioned. This perceived

injustice can lead to feelings of hopelessness, despair, and world-weariness, referred to as "Weltschmerz" in German (Bryant et al., 2022).

#### **Moderating Effects of SQB on Moral Disengagement**

Accordingly, loss aversion cannot be regarded as entirely unfounded as prospective losses are tangible in several areas of life. Furthermore, the anxiety induced by these potential deficits could be particularly potent for cognitively inflexible individuals, who are strongly committed to the status quo and inherently reluctant to adapt to change. Thus, these individuals high in SQB might be the most motivated to discredit criticism of the status quo and to defend it most adamantly. As motivated reasoning is largely driven by emotion (Lind et al., 2022), we expect the strongest moral disengagement and most irrational responses to dissonance evoking materials to be reflected in this group.

Hypothesis 2: The effect in hypothesis one is moderated by SQB. Specifically, omnivores who also score high on SQB are the most likely to morally disengage.

Moreover, we believe that individuals who score high on SQB are more likely to be found in the omnivorous majority, as research has shown, for example, that omnivores in Western societies tend to be higher in conservatism (Pfeiler & Egloff, 2018), which is ideologically focused on resisting change and supporting existing inequalities (Jost et al., 2003).

Hypothesis 3: Omnivores score higher in SQB than veg\*ans.

#### Summary

In summary, the status quo of meat consumption is highly protected and there are few incentives for consumers to change. For the majority of omnivores, changing their current eating habits would have many negative consequences, as there are several negative sentiments associated with conceding that the status quo of food culture is flawed. These may be even more severe for omnivores with high SQB. Furthermore, even when MRCD is evoked, the resulting feelings of guilt and discomfort can presumably be cognitively dispersed through motivated reasoning and moral disengagement. Consequently, the transition to a more plant-based diet faces substantial inertia and resistance from deep-seated social and psychological factors.

#### Methods

## **Participants**

The sample consists of 75 participants (28 male, 45 female, 2 non-binary, and 2 other) who completed the study online. Forty-three were first-year undergraduate students at the University of Groningen. Participants were recruited through Sona Systems (Sona Systems, n.d.) and convenience sampling. Of the 75 participants, 21 were high meat consumers, 33 were meat-reducing flexitarians, five were pescatarians, and 16 followed a largely plant-based diet (i.e. vegans and vegetarians). The minimum age for participation was 18 years. Participation was voluntary, and all participants signed an informed consent form and were rewarded with 0.4 credits if recruited through Sona Systems. The study was approved by the Ethics Committee of the Department of Psychology, University of Groningen (study code: PSY-2324-S-0259).

## **Materials and Procedure**

The study is a cross-sectional survey study focusing on between-subject measures. For data collection, participants completed the study online using the Qualtrics XM platform, and JASP statistical software was used for data analysis. The questionnaire began with a brief explanation of the study, followed by a request for the participants' informed consent. Participants were then asked to report their dietary preferences and habits. In the next step, they were instructed to read a text presenting various arguments, which highlight the adverse consequences of eating meat, such as the environmental impact, health implications, and iniquitous slaughtering practices. We then collected several measures of individual differences. In the final section of the questionnaire, we recorded gender (male, female, nonbinary), as well as political orientation, with one item asking participants to indicate their political leaning (1: extremely left to 9: extremely right). Participants were debriefed at the end of the study.

#### Measures of Dietary Choice

We asked participants to indicate their dietary habits, which served as the independent variable. The first question was: "How would you describe your current diet?" Participants could choose between "My meals (almost) always include meat", "I balance meat and vegetarian options", "Fish is my only source of meat", and "Plant-based (mostly vegetarian or vegan)". Participants who selected either the first or second option were directed to a second and third item. The second item asked participants how many days a week they consumed meat products, using a seven-point Likert scale ranging from one day to seven days a week. The third item asked, "Do you make an effort to reduce your meat consumption?", with response options ranging from "absolutely no efforts" to "significant efforts" on a 5-point Likert scale.

#### Measures of Moral Disengagement

Due to the methodological difficulties of directly measuring moral disengagement, we used two measures that we predicted to capture expressions of disengagement.

**Persuasiveness of arguments.** We asked participants to rate the persuasiveness of arguments relating to environmental concerns ("Plant-based diets are better for the environment"), moral concerns ("Plant-based diets prevent animal suffering"), and health concerns ("Plant-based diets are better for your health"). This was rated on a 6-point Likert scale, ranging from 1 (not at all convincing) to 6 (very convincing) ( $\alpha = .60$ ).

Author motive. We also asked participants to make inferences about the motives of the fictional author of the text. We adapted six items from the questions used by Müller et al.

(in preparation), using a bipolar scale ranging from -3 to +3. Three of these items tested for altruistic motives in the author (e.g., "The author wants to communicate facts to the public"), with a Cronbach's alpha for this measure of  $\alpha$  =.66. The other three items tested for selfish motives in the author (e.g., "The author wants to protect their personal interests"). The Cronbach's alpha for the selfish motives measure was acceptable at  $\alpha$  = .71.

Measures of Status Quo Bias. We measured status quo bias using a total of six items from Oreg et al.'s (2008) 17-item Resistance to Change Scale (e.g., "I generally view change as a negative thing.", "My views are very consistent over time."). Agreement with the statements was measured on a 6-point Likert scale ranging from "Strongly disagree" to "Strongly agree". The items yielded a Cronbach's alpha of  $\alpha = .80$ , indicating high internal consistency.

### Results

#### **Preliminary Analyses**

Table 1 shows the descriptive statistics and correlations within our sample.

### Table 1

Variable 2 3 4 5 6 7 М SD 1 1. Selfish 0.16 1.25 2. Prosocial 1.25 0.78 0.53\*\* 3. Persuasi 4.78 0.87 - 0.15 0.31\*\* on 0.55\*\* 4. Diet 2.20 0.94 0.08 0.02 - 0.10 - 0.02 - 0.24 0.73\*\* 5. Days 4.24 1.73 6. Pol. - 0.03 Orient. 4.01 1.61 0.06 - 0.38\*\* 0.32\*\* 0.13 - 0.01 0.00 0.002 0.29 0.02 7. SQB 3.34 0.91 - 0.03\*

Descriptive Statistics and Correlations for Study Variables

p < .05. p < .01.

Participants generally did not attribute strong selfish motives to the author (M = 0.16, SD = 1.25), but rather perceived them as prosocially oriented (M = 1.25, SD = 0.78). However, there was a strong positive correlation between the attributional measures (Table 1). Furthermore, the participants were overall quite convinced by the text (M = 4.78, SD = 0.82). There was no strong evidence of SQB in our sample (M = 3.34, SD = 0.91), and SQB and political orientation did not share a significant correlation (r = 0.02, p = 0.88).

## **Hypotheses Tests**

We conducted multiple univariate analyses of variance (ANOVA) which revealed a highly significant effect of dietary choice on overall persuasiveness, F(3,73) = 13.3, p =<0.001, resulting in a large effect size ( $\eta^{2}_{p} = 0.35$ ). As indicated by descriptives, planned contrasts, and post-hoc tests (Table 1, Table 2, Table 3, Tables and Figures), both omnivorous groups reported significantly less perceived persuasiveness, with the largest discrepancies being with the veg\*an group. However, the flexitarian group still rated the arguments as significantly more convincing than the high meat consumption group. Nevertheless, the significance of these effects was not replicated for the attribution of prosocial, F(3,71) = 0.26, p = 0.86,  $\eta^{2}_{p} = 0.01$ , or selfish motives to the author, F(3,71) = $0.41 \ p = 0.75$ ,  $\eta^{2}_{p} = 0.02$ . Therefore, hypothesis one that omnivores would display more disengagement than veg\*ans was partially supported.

To examine the moderating effects of SQB, we additionally conducted analyses of covariance (ANCOVA), which included the interaction effect between dietary choice and SQB and used SQB as a covariate. These revealed non-significant effects for the attribution of prosocial motives (Table 4, Tables and Figures) and marginally significant effects for diet on the attribution of selfish motives, F(3,65) = 2.44, p = 0.07,  $\eta^2_p = 0.10$ . Graphical inspection of the interaction plots (Figure 1, Figure 2) indicated the presence of interaction

effects for this measure, as high meat consumers attributed more selfish motives the higher they scored on SQB. This effect was reversed for all other dietary groups.

The previously significant effect for persuasiveness from the ANOVA analyses became nonsignificant when SQB was added to the model, F(3,66) = 1.27, p = 0.29,  $\eta^2_p = 0.06$ ). However, planned contrasts, comparing all dietary groups with the high meat consumption group (Table 2), revealed significant differences between high meat consumers and veg\*ans, and pescatarians, with high meat consumers reporting the lowest and pescatarians the highest perceived persuasiveness (Figure 1). Furthermore, the interaction plots showed clear interaction effects (Figures 1, Figure 2), as high meat consumers were less persuaded and attributed more selfish motives when they scored higher on SQB, whereas this effect was slightly reversed for both flexitarians and pescatarians. This lent partial support to the idea that the relationship between moral disengagement and dietary choice is moderated by SQB.

Finally, the ANOVA conducted for hypothesis three revealed no significant effect of dietary choice on SQB overall, F(3,71) = 1.85, p = 0.15,  $\eta^{2}_{p} = 0.07$ .







### Table 2

Comparison	Estimat e	SE	df	t	р
2 - 1	0.389	0.210	66	1.851	0.069
3 - 1	1.257	0.249	66	5.050	< .001
4 - 1	1.011	0.391	66	2.582	0.012

ANCOVA Simple Contrast – Persuasiveness

Moreover, planned contrasts comparing all dietary groups with the high meat consumers group revealed no significant difference between high meat consumers and veg\*ans. However, the contrast between high meat consumers and flexitarians (Table 6, Tables and Figures) was significant, as of all dietary groups the flexitarian group reported the lowest SQB tendencies (Table 7, Tables and Figures). Therefore, hypothesis three that omnivores would score higher in SQB than veg\*ans was not supported.

In summary, the data analysis provided partial support for the first two hypotheses, as there was evidence of motivated reasoning and interaction effects present. However, hypothesis three was not supported, as the omnivorous flexitarian group reported the least SQB and not, as expected, the veg\*an group.

## Discussion

This project investigated the relationship between dietary choices and potentially resulting moral disengagement processes as well as the moderating role of status quo bias. Overall, we found a strong effect of dietary choice on the perceived persuasiveness of the arguments presented, supporting the notion that there was a directional distortion in the perception of arguments. Moreover, as indicated by the interaction plots, this relationship appeared to be moderated by SQB for high meat consumers, as they attributed more selfish

motives to the author and were less persuaded by the arguments presented the higher they scored on SQB. Interestingly, these effects were partially reversed for other dietary groups. Contrary to our expectations, omnivores did not score higher on SQB overall than veg\*ans, as out of all dietary groups, flexitarians reported the lowest SQB tendencies.

The fact that there was a significant effect for persuasiveness, but not for attribution of selfish motives, suggests that motivated reasoning provided sufficient motivation for omnivorous participants to discredit the arguments, but not to disparage their author. Conversely, all dietary groups perceived the author as generally prosocially oriented. This effect may have been influenced by group-specific evaluations, as research has shown that omnivores perceive veg\*ans as more moral than their ingroup (De Groeve et al., 2021). This may have prevented them from attributing selfish motives to an author, whom they may have perceived as veg\*an, despite their possible displeasure with their writing. However, as the measures for attribution of selfish and prosocial motives had a strong positive correlation, they still may have indirectly captured negative sentiments towards the author by means of "do-gooder derogation" (Minson & Monin, 2012). This concept suggests that individuals sometimes hate the condemners of a valued practice due to fear of moral reprimand. Consequently, while the participants acknowledged the author's prosocial goals they seemed to deny giving them holistic moral credit by alleging morally disfavorable tendencies, such as selfishness, in them.

Regarding the effects of SQB, our hypothesis that most moral disengagement would be observed in omnivorous individuals high in SQB was supported. Our findings indicated that the attribution of selfish motives, which was our strongest and arguably most irrational measure of moral disengagement, was only rated as stronger by high meat consumers with high SQB. Surprisingly, however, the large observed difference in moral disengagement between meat-reducing flexitarians and high meat consumers was not anticipated in our hypothesis. This reduced moral disengagement and increased persuasion in both pescatarians and flexitarians, with increased SQB, therefore suggests that there are qualitative differences within the omnivorous groups in their perception of their status quo and their subsequent bias towards it. For example, the meat-reducing groups, and especially pescatarians, may have felt validated in their current efforts and less threatened by the presented criticism of meat consumption, due to their reduced attachment to it. Lastly, it is interesting to note that we did not observe a significant correlation between SQB and political orientation which we had hypothesized would be the case due to the inherent characteristics of more conservative ideologies.

#### **Theoretical and Practical Implications**

Previous research has shown that reminding omnivores of the meat paradox readily induces MRCD and that simple actions, such as referring to what is on the plate as 'cow' instead of 'beef', can be sufficient to significantly reduce willingness to consume meat products (Kunst & Hohle, 2016; Rothgerber, 2014). However, as our results show, that these persuasion outcomes are likely subject to directional distortion, it appears imperative to address motivated reasoning processes proactively. Taken together with prior research findings highlighting the importance of message-congruence (Yule & Cummings, 2023), our findings therefore illustrate the potentially crucial importance of targeting intervention programs to their intended recipient groups. For example, when designing interventions aimed at raising awareness for animal welfare, policymakers should be aware of the potentially adverse effects of guilt on omnivores. Research has shown that beyond a certain threshold, guilt appeals are no longer perceived as persuasive due to the disruptive evocation of anger at their source (Coulter & Pinto, 1995). As previously discussed, this effect is likely to be amplified for meat consumption, since it is a highly personal behavior and criticism of it may lead to threats to the moral identity and self-concept of omnivores.

Interventions could therefore aim to promote understanding attitudes, for example by acknowledging that many factors other than personal 'malice' contribute to the problem and that dietary choices need to be considered within the highly contextualized framework of existing food systems and culture. In addition, interventions in this context could aim to normalize the fact that consumers may only recognize moral conflicts between their meat consumption and ethical standards at a mature age, without criticizing them for not having recognized these inconsistencies earlier.

Furthermore, the factors that facilitate SQB should also be considered. For instance, triggering loss aversion should be avoided by highlighting what can be gained from eschewing meat consumption and by mitigating perceptions of social loss. Interventions could accordingly promote public support for plant-based diets by using well-liked veg\*an public figures to break stigma and to illustrate that giving up meat consumption does not necessarily result in ostracism. The importance of signaling social support was illustrated in previous research which showed that veg\*ans or individuals considering a veg\*an diet felt more empowered to express their dietary choices in the presence of allies who support plantbased diets (Bolderdijk & Cornelissen, 2022). These findings are consistent with earlier research on social influence, which showed that the perception of a unanimous majority is a crucial factor for inducing conforming or yielding behaviors (Asch, 1956).

## **Limitations and Future Research Directions**

The lack of significance found for some of our results, especially for the interaction effects, may be largely explained by our limited sample size and subsequent lack of power. Thus, future research might benefit from replicating our design with larger sample sizes. Moreover, since, we used a non-representative convenience sample, cross-cultural replications with more diverse samples could provide interesting findings and increase external validity. Due to our disproportionate recruitment of university students, the resulting non-representativeness of our sample, was expected to have an impact on our measures. The reported low prevalence of SQB, for instance, may indicate that young adults in higher education could have less SQB than other demographic groups. Consequently, using a more diverse sample might increase the chances of identifying more individuals with higher levels of SQB.

To better study pescatarians, future research could also benefit from including arguments that specifically highlight the disadvantages of fish consumption. In addition, to refine our moral disengagement measures, perceived threat severity as well as the strength and wording of the presented arguments could be altered. This could allow for testing potential amplification effects on moral disengagement. Moreover, manipulating disclosing the author's dietary preference and introducing interaction goals (Cesario et al., 2006) with the author could provide more nuanced results and insights into potential outgroup derogation processes and their relationship to motivated cognitions. Furthermore, separating vegans and vegetarians, as well as ethical and health-motivated vegans, could provide interesting results, as previous research has suggested the existence of notable differences between these plantbased groups (Dhont & Ioannidou, 2024; Ruby, 2012). Finally, the impact of recent and ongoing changes in dietary culture, such as the increased availability of plant-based products in retail stores and the resulting potentially heightened salience of veg\*an diets could also provide an intriguing avenue for future research.

#### **Additional Themes for Critical Reflection**

It can be argued that the likelihood of the status quo of Western food culture shifting towards predominantly plant-based diets remains low. The inherent characteristics of the status quo and human biases can create considerable inertia that arbitrarily protects the current state of affairs - whatever they may be. This provides an engrossing domain for studying moral conventions and how they despite evident deficiencies are implemented. This can, for instance, be observed in the dichotomous treatment of pigs and dogs and the cultural disparities in these norms (Bryant et al., 2022; Horne et al., 2021). In Western societies, meat consumption is defended based on its 'naturalness' and perceived tradition (Joy, 2020; Piazza et al., 2015). Additionally, it is associated with conservative values (Allen et al., 2000). India however, where population estimates for vegetarians range up to 40%, provides a different narrative, as in some states of India vegetarianism is associated with historically grown and religiously supported status and power (Preece, 2014). Moreover, studies with vegetarian children have shown that the values relating to meat consumption can be absorbed at an early age. This is illustrated by research showing that vegetarian children reportedly judge eating meat as harshly as other moral transgressions, such as stealing (Hussar & Harris, 2010). It is therefore reasonable to assume that if the status quo of Western eating habits were different, the infrastructure for industrial animal husbandry was not in place, and the ethics surrounding meat consumption were taught differently, individuals would be far from regressing to hunting animals for their own consumption

## Conclusion

Although the results of our study were not entirely conclusive, they contribute to the growing body of research and highlight the influence of potential interactions between the cognitive and social factors sustaining the status quo. As suggested by our results, criticism of meat consumption and the resulting MRCD may lead to moral disengagement, which could be influenced by individuals' SQB. Consequently, it has become clear that attempting to alter the status quo of a food culture is a difficult undertaking. Changes in dietary choices based on altered moral standards would, in many ways, run contrary to human nature, as they require a critical appraisal of the very values taught in one's upbringing, which are by adulthood habituated and reinforced on countless occasions. Especially, for more cognitively rigid individuals who are strongly committed to the status quo, this may pose a great

challenge. On the other hand, psychological research and history have shown that raising awareness for previously widely accepted harmful behaviors can reduce the willingness to engage in them and can result in changes to collective moral consciousness. Consequently, the possibility that a new status quo of food culture could be progressively established should not be entirely dismissed. As society continues to grapple with the unsustainability of current food systems and the ethical and environmental problems they create, it is arguably more important than ever to gain a better understanding of how sustainable and meaningful change could be brought about.

# **Tables and Figures**

# Table 1

ANOVA Diet-Persuasiveness - Descriptives

diat N	+ N	Moon	۶D	СЕ	Coefficient of
ulet in Meal		Wiedli	SD SE		variation
1	21	4.206	0.916	0.200	0.218
2	34	4.657	0.713	0.122	0.153
3	17	5.588	0.364	0.088	0.065
4	5	5.333	0.527	0.236	0.099

## Table 2

ANOVA Diet-Persuasiveness - Simple Contrasts

Comparison	Estimate	SE	df	t	р
2 - 1	0.451	0.197	73	2.287	0.025
3 - 1	1.382	0.232	73	5.968	< .001
4 - 1	1.127	0.353	73	3.191	0.002

## Table 3

ANOVA Diet-Persuasiveness Post Hoc Tests

	Mean Difference	SE t Cohen's d	ptukey
12	-0.451	0.197 -2.287 -0.635	0.111
3	-1.382	0.232 -5.968 -1.947	< .001 ***
4	-1.127	0.353 -3.191 -1.588	0.011 *
23	-0.931	0.211 -4.418 -1.312	< .001 ***
4	-0.676	0.340 -1.990 -0.953	0.201
34	0.255	0.361 0.706 0.359	0.894

Note. P-value adjusted for comparing a family of 4

\* p < .05, \*\* p < .01, \*\*\* p < .001

# Table 4

	~					
Cases	SS	df	MS	F	р	$\eta^2 p$
diet	0.889	3	0.296	0.439	0.726	0.020
SQB	0.015	1	0.015	0.022	0.883	3.357×10 <sup>-4</sup>
diet * SQB	0.836	3	0.279	0.413	0.744	0.019
Residuals	43.830	65	0.674			

ANCOVA Diet - SQB - Prosocial Motives

Note. Type III Sum of Squares

# Table 5

ANCOVA DV Persuasiveness - Descriptives

diet	N	Mean	SD	SE	Coefficient of variation
1	20	4.217	0.938	0.210	0.223
2	34	4.657	0.713	0.122	0.153
3	15	5.578	0.367	0.095	0.066
4	5	5.333	0.527	0.236	0.099

## Table 6

ANOVA Diet-SQB - Simple Contrast

	$\mathcal{L}^{-}$ $\sim \cdots T$				
Comparison	Estimate	SE	df	t	р
2 - 1	-0.543	0.252	71	-2.154	0.035
3 - 1	-0.233	0.307	71	-0.760	0.450
4 - 1	0.033	0.449	71	0.074	0.941

# Table 7

ANOVA Diet-SQB - Descriptives

diet	N	Mean	SD	SE	Coefficient of variation
1	20	3.633	0.930	0.208	0.256
2	35	3.090	0.850	0.144	0.275
3	15	3.400	1.006	0.260	0.296
4	5	3.667	0.745	0.333	0.203

# Figure 1

Interaction plot SQB – Diet – Prosocial M.



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