

**On the Edge of Change: Understanding the Factors Influencing the Transition From a  
Meat-Based to a Meatless Diet**

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### **Abstract**

The motivation for reducing meat consumption stems from environmental, health, and ethical concerns. Numerous potential factors can impact alterations in one's diet, and it is essential to determine the extent to which each factor contributes to such changes. This paper explores the transition from a meat-based to a meatless diet. It aims to understand the factors influencing this transition, focusing on age, gender, cognitive dissonance, religious identity, peer influence, the availability of affordable plant-based alternatives, and perceived health benefits. Here, it is particularly interesting to investigate the tipping point at which individuals consider adopting a more sustainable diet combined with the factors impacting this decision.

Methodologically, a cross-sectional correlation research design involving 161 participants was employed. Logistic regression analysis reveals that cognitive dissonance and the availability of affordable alternatives significantly predict the transition to a meatless diet. The tipping point for cognitive dissonance suggests that individuals are 50% likely to switch to a meatless diet when experiencing slightly more than a moderate amount of cognitive dissonance.

Meanwhile, the tipping point for affordable alternatives is at the maximum ease of finding alternatives, indicating its significance but weak predictive power. In conclusion, this study provides insights into the multifaceted influences on transitioning from a meat-based to a meatless diet. By understanding these factors, interventions can be developed to reduce meat consumption.

*Keywords:* Choice of diet, meat consumption, cognitive dissonance, affordable alternatives, tipping points

## **On the Edge of Change: Understanding the Factors Influencing the Transition From a Meat-Based to a Meatless Diet**

Globally, consumers are inclined to reduce their meat consumption or opt for plant-based alternatives to varying extents (Statista, 2023a). In this context, India leads in the percentage of vegetarians compared to other surveyed countries, and the United Kingdom and Germany take second and third place, respectively (Statista, 2023b). Both countries have witnessed an increase in the production of vegetarian and vegan meat substitutes in recent years. Germany, for instance, experienced a growth of over 60 percent in meat substitute production between 2019 and 2021. By 2028, consumption in the UK is expected to surpass 130 million metric tons.

In recent years, reducing meat consumption has gained significant attention due to its impact on the environment, health, and ethical treatment of animals (Godfray et al., 2018). This discourse acknowledges the relationship between human dietary choices, climate change, personal well-being, and animal welfare. To minimize these negative consequences of meat consumption, it is necessary to understand what motivates people to change their behavior and which factors can influence this to what extent so that these can be used sensibly in, for example, interventions. Thus, particularly interesting in this context is when people decide to transfer from a meat-based diet to one that excludes meat and which variables may influence that shift.

Many factors can motivate a change in diet. One of the most relevant to ensure a sustainable future is the impact of meat production on the environment, including deforestation, greenhouse gas emissions, and depleted resources (Arrieta & González, 2018; Hallström et al., 2014; Popp et al., 2010). Scientists and activists emphasize the need for sustainable alternatives to reduce the negative impact of meat-centric diets on our planet.

Another reason why people are cutting back on meat consumption is due to ethical concerns about how animals are treated in industrial agriculture (Rossi & Garner, 2014). At the same time, attention has been given to the health consequences of excessive meat consumption (Barnard & Leroy, 2020; Huang et al., 2012). Studies have shown that overeating meat can lead to cardiovascular disease, obesity, and certain types of cancer. As a result, interest in plant-based or reduced-meat diets to improve overall health and well-being is growing.

In this context, Ruby (2012) found that younger individuals are often motivated to change their diet by ethical considerations, such as environmental concerns and animal welfare. In contrast, a study by Schmid et al. (2017) on dietary preferences of middle-aged and older individuals showed that this group frequently eats meat and animal products, with consumption influenced by household size, BMI, gender, and linguistic region. That implies that older adults may prioritize different factors when making food decisions, including health consequences. Accordingly, it still needs to be determined if there is a specific point of time in age when people are changing habits, but age could be one predictor influencing the tipping point at which people might switch to a different diet.

For individuals engaged in this complicated interplay between health considerations and lifestyle choices, the perceptions of health benefits associated with plant-based diets are a critical motivating factor (Radnitz et al., 2015). This exploration sheds light on individuals' conscious decisions to align dietary choices with perceived health advantages. Lea and Worsley (2003) outlined the perceived health benefits of a vegetarian diet, including improved weight management, lower risk of certain diseases, and increased vitality. These health advantages may motivate individuals to consider a plant-based diet, shaping their decisions and influencing the transition. Radnitz et al. (2015) found that health considerations often extend beyond diet and may encompass other lifestyle factors, such as ethical and

environmental considerations. However, it needs to be clarified to what extent the perceived health benefits of not eating meat are necessary for people to doubt their consumption. Thus, this study investigates the perceived health benefits of consuming plant-based alternatives instead of meat as another predictor.

Despite the knowledge that a vegetarian diet has benefits, many prejudices still exist against a plant-based diet and its vitality. Reipurth et al. (2019) emphasized that negative attitudes toward protein content and satiety hinder the adoption of a plant-based diet, while positive attitudes facilitate such transitions. Thus, the notion that the perceived nutritional need for meat, particularly as a protein source, serves as a barrier to adopting plant-based alternatives. Particular men may have difficulties achieving their nutritional needs because they believe that vegetarian diets are deficient in some vital elements typically associated with masculinity, such as protein. Women may find it more socially acceptable or less challenging due to existing stereotypes associated with caring for health and well-being. Rothgerber's (2013) study explored the difficulties that people with different gender identities encounter when they decide to become vegetarians. It revealed differences in how people of different genders view the suitability of a vegetarian diet. These findings contribute to the broader understanding of how gender dynamics affect decision-making processes and influence the adoption of sustainable and plant-based diets.

However, different dietary practices may also be encouraged by different external influences, like religious traditions, social surroundings, or the assortment in grocery stores. Filippini and Srinivasan (2019) investigated the factors influencing meat consumption in India, focusing, among other things, on the interplay of religious participation. They found that religious participation plays a significant role in shaping dietary choices, with individuals more religiously engaged exhibiting lower meat consumption. For instance, Hindu households are more likely to consume meat if they are part of non-religious social networks but less

likely to do so if they are members of religious groups. That way, religious identification is a crucial factor influencing diet choice. However, it still needs to be made clear to what extent people decide to fully engage in their religion and stop eating animal flesh.

Just as religious affiliation is already an excellent example of the influence of social networks, individuals often seek validation and support in their social environment. The dominating dietary norms within these networks may facilitate or hinder a plant-based diet. Cruwys et al.'s review (2015) on social modeling of eating and Salvy et al.'s (2012) investigation into the impact of peers on dietary behaviors contribute valuable insights into how social networks and influences shape the decision-making process regarding dietary choices. Cruwys et al. (2015) state that individuals often adjust their dietary choices based on the observed behaviors of those around them. For example, suppose someone within a social network adopts a plant-based diet. In that case, their peers may be more inclined to consider and adopt similar dietary choices due to the influence of social modeling. This is supported by Salvy et al. (2012), stating that individuals may be more likely to choose healthier or more sustainable dietary options if their peers do so. The extent to which this social influence is necessary to observe people switching their diets will be investigated by adding peer influence as another predictor.

Nevertheless, these individual, social, and societal factors are only relevant if someone can access the necessary food for a particular diet. Reipurth et al. (2019) studied barriers and facilitators towards adopting a more plant-based diet among Danish consumers, and Allen (2010) discussed local food systems, providing insights into the role of economic factors in shaping dietary transitions. Allen's (2010) discussion emphasized the importance of local food systems in influencing dietary choices. The accessibility of fresh, affordable, and locally produced plant-based options can significantly impact individuals' decisions. For instance, areas with limited access to diverse and affordable plant-based alternatives may need help

adopting plant-based diets. Thus, it is questioned to what extent this factor is necessary to have a sufficient effect on diet.

Despite all the influences on diet choice mentioned so far, people may experience conflicting beliefs or attitudes about reducing meat consumption, which can cause *cognitive dissonance*. The theory of cognitive dissonance, as proposed by Festinger (1957) and elaborated by Harmon-Jones et al. (1999), provides insights into the conflicts individuals may experience when faced with information (e.g., environmental impact or ethical concerns associated with the meat industry or health benefits of a plant-based diet) challenging their existing beliefs about meat consumption. This concept helps to explain the mental processes involved in integrating ethical considerations, health concerns, and rooted habits. Therefore, navigating cognitive dissonance becomes a crucial aspect of the decision-making process involving the transition from being meat-eaters to adopting plant-based diets and will likely be the strongest predictor at that transition point.

By combining these viewpoints on factors that might influence a shift in diet, this paper aims to answer the following central question: To what extent do age, gender, cognitive dissonance, religious identity, peer influence, the availability of affordable plant-based alternatives, and perceived health benefits influence the transition from being a meat eater to becoming a non-meat eater and at what point do individuals reconsider their diet? This question is expected to explain how much influence someone needs to start rethinking and reconsidering their diets. When this tipping point is known, it can be used to create interventions to reduce meat consumption in general. To better understand people's attitudes toward meat consumption, it is essential to categorize individuals into dietary groups, ranging from *omnivores* who eat both plant and animal products to *vegans* who abstain from all animal products. Omnivores, *flexitarians*, and *pescatarians* are categorized under the umbrella term 'meat eaters'. Here, a flexitarian diet is a flexible way of eating that allows



occasional meat consumption, whereas a pescetarian diet eliminates all types of meat except fish and seafood (Hargreaves et al., 2023). This grouping reflects the common characteristic that they include the consumption of animal flesh, considering the different levels of that consumption. It is essential to define meat consumption in such a way that all animal suffering and life circumstances are considered, thus including pescatarians in the group of meat eaters. Conversely, it is referred to *vegetarians* and vegans as ‘non-meat eaters’ as they do not include consumption of animal meat and are committed to a plant-based lifestyle. Giving up meat is the first step and most significant change towards a more sustainable, plant-based diet.

## Methods

### Participants

The sample consisted of 161 participants, with 149 filling out their age (18-93 years old,  $M_{\text{age}} = 33.2$  years,  $SD = 14.97$ ). Out of the 161 participants, 71.4% ( $n = 115$ ) identified as females, 21.7% ( $n = 35$ ) as males, 1.2% ( $n = 2$ ) as non-binary, and 5.6% ( $n = 9$ ) did not give any answer and count as missing ( $N_{\text{gender}} = 152$ ). Participants were found by contacting friends and family through WhatsApp and Instagram. Survey results show that 34.2% ( $n = 55$ ) identified as omnivores, 26.7% ( $n = 43$ ) as flexitarian, 5% ( $n = 8$ ) as pescetarian, 17.4% ( $n = 28$ ) as vegetarian, 13.7% ( $n = 22$ ) as vegan, and 3.1% ( $n = 5$ ) as other. To compare the two groups of meat eaters, the dependent variable, the frequencies of eating meat and seafood were recoded into a different variable for groups of meat eaters (1 for meat eaters and 0 for non-meat eaters). That is because there were too many participants choosing one kind of diet and then adding a comment or a frequency that did not fit the definition of the specific diet ( $N = 161$ , 68.9% ( $n = 111$ ) of meat eaters, and 31.1% ( $n = 50$ ) of non-meat eaters). Regarding religion, 23% ( $n = 37$ ) of the sample identified as strongly or somewhat religious, 67.7% ( $n = 109$ ) as strongly or somewhat not religious, and 9.3% ( $n = 15$ ) as neither or were missing.

## **Design**

A cross-sectional correlation research design allowed for the exploration of the relationships between multiple factors and the dietary choices of individuals, as well as the relationships between these factors. It helped to understand the dynamics of transitioning from being a meat eater to a non-meat eater.

The dependent variable was dietary choice. I used people's frequency of eating meat and seafood here to come up with the two groups, meat eaters and non-meat eaters, which form the dependent variable dietary choice. Meat eaters include people consuming meat and seafood at whatever frequency, and non-meat eaters include people consuming neither.

The independent variables predicting the dependent variable consisted of one categorical variable, gender, and six continuous ones, age, cognitive dissonance, religious identity, peer influence, the availability of affordable plant-based alternatives, and perceived health benefits. I tested the relationships between each of these variables.

## **Procedure**

The study approved by The Ethical Committee Psychology (ECP) was part of the bachelor thesis project about how cognitive dissonance encourages a more sustainable diet. We recruited friends, family, and relatives to fill out the questionnaire through a link sent via WhatsApp and Instagram and collected the responses from the 29<sup>th</sup> of November until the 4<sup>th</sup> of December 2023. As the questionnaire was developed as a joint effort, it contains more information than is described in the next section. Thus, the remaining details not mentioned are irrelevant to this paper.

The questionnaire started with an information page that informed about why the participants received this information, that participation was voluntary, and the purpose of this research. It emphasized that participation was voluntary and detailed what was expected of them. It also mentioned the consequences of participation and the confidentiality of their data.

Additionally, we provided them with some contact information they could contact if there were any more questions. After consenting, the participants had to state their dietary choice, age, gender, if they identify as religious, and their attitude towards different statements regarding food consumption. That is, if it is easy for them to find affordable meat alternatives in local grocery stores, if they agree on plant-based alternatives being healthier than animal products, and if they agree on adapting to peers' diet choices over time. Additionally, we asked participants to state their frequency of eating meat and seafood, which I used to recode the two groups of meat eaters and non-meat eaters, forming the dependent variable. Even though participants took, on average, around 30 minutes, the time it took the average participant to fill in the questionnaire was 15 minutes, given the considerable variation and a few extreme cases (*minimum* = 5.07 minutes; *maximum* = 1005.6 minutes). The questionnaire and communication regarding the study were in English, and no award was given to the participants.

## **Material & Instruments**

### ***Dietary Choice***

The demographic question for dietary choice was “What is your dietary choice right now?” measured by a scale from 1 to 6 (1 = *Omnivore*, 2 = *Flexitarian*, 3 = *Pescatarian*, 4 = *Vegetarian*, 5 = *Vegan*, 6 = *Other*). Also, we asked for the frequencies of eating meat and seafood by using a scale from 1 to 6 (1 = *Never*, 2 = *Once a week*, 3 = *2-3 times a week*, 4 = *4-5 times a week*, 5 = *6-7 times a week*, 6 = *More than once a day*) which I used to recode the two groups of meat-eaters and non-meat eaters ( $N = 161$ , non-meat eaters: 31.1%, meat eaters: 68.9%).

### ***Age and Gender***

The demographic question for age was “How old are you?” measured by a scale from 1 (16) to 84 (99+) ( $N = 149$ , range = 18-93,  $M = 33.2$ ,  $SD = 14.97$ ). The question for gender

was “How do you identify in terms of gender?” in combination with a blank answer field that the participants could type in themselves ( $N = 152$ , male: 23%, female: 75.7%, non-binary: 1.3%).

### ***Cognitive Dissonance***

The scale of meat-related cognitive dissonance developed by Elliot and Devine (1994) and Rydell et al. (2008) and included in research by Bouwman et al. (2022) ( $\alpha = 0.933$ ) is a 7-point Likert answering scale (1 = *totally not* to 7 = *totally*) consisting of the questions “To which extent do you expect to experience the following emotions when you choose a meal with meat?” and “To which extent do you expect to experience the following emotions when you choose a meal with an animal product?”. We used a 5-point Likert answering scale (1 = *none at all* to 5 = *a great deal*). The three items measuring feelings of dissonance were ‘uncomfortable’, ‘uneasy’, and ‘bothered’ for both questions ( $M = 2.6$ ,  $SD = 1.34$ ,  $\alpha = 0.963$ ). To be able to work with this scale, I calculated the average rating scores of the participants using all six items (three items per question).

Because this study measured many variables and did not focus on a few in-depth, most scales only used one item to measure the associated variable. Additionally, the following scales were self-made since I did not find fitting instruments to measure the intended variables during the literature review.

### ***Resistance to Peer Influence***

Resistance to peer influence was measured by a self-made 5-point Likert answering scale (1 = *strongly disagree* to 5 = *strongly agree*) with one item: “After a while, I adapt to the diet choices of those around me” ( $M = 2.88$ ,  $SD = 1.22$ ). *The Resistance to Peer Influence Scale* would have fit the variable (Steinberg & Monahan, 2007). However, selecting a single item from this scale was impossible as it would not have measured what was intended, namely whether the person conforms to peers over time.

### ***Availability of Affordable Meat Alternatives***

Availability of affordable meat alternatives was measured by a self-made 5-point Likert answering scale (1 = *extremely difficult* to 5 = *extremely easy*) with one item: “How easy is it for you to find affordable meat alternatives (e.g., plant-based burgers, meatless ground meat) in your local grocery stores?” ( $M = 3.99$ ,  $SD = 1.12$ ).

### ***Perceived Health Benefits***

Perceived health benefits were measured by a self-made 5-point Likert answering scale (1 = *strongly disagree* to 5 = *strongly agree*) with one item: “Consuming plant-based alternatives is healthier for you than traditional animal-based products” ( $M = 3.41$ ,  $SD = 1.12$ ).

### ***Religious Identity***

Religious identity was measured by a self-made 5-point Likert answering scale (1 = *strongly disagree* to 5 = *strongly agree*) with one item: “I am a religious person” ( $M = 2.08$ ,  $SD = 1.4$ ).

### **Data Analysis**

The one categorical independent variable predicting dietary choice was gender, and the six continuous independent variables predicting dietary choice were age, cognitive dissonance, religious identity, peer influence, the availability of affordable plant-based alternatives, and perceived health benefits.

To understand how each variable influences the transition from being a meat eater to a non-meat eater, I examined relationships between the independent and dependent variables using logistic regression analysis and correlations. I started the analysis by running a logistic regression in which I entered all predictors simultaneously. Then, I repeated the logistic regression individually for each significant predictor. I calculated the value of the independent variable that provides a 50% chance of a participant following a meat-based or a plant-based

diet by computing the tipping point TP given by  $TP_k = -b_{0k}/b_{1k}$ , where  $b_{0k}$  is the intercept of the predictor  $k$  and  $b_{1k}$  is the regression coefficient of the predictor  $k$ . Participants scoring more than that value in each independent variable had a higher probability of belonging to meat eaters, and the ones scoring lower than that value had a higher probability of belonging to non-meat eaters.

After the regression analysis, I checked for multicollinearity using the Pearson correlation test, which determined how much the different predictors correlate.

### **Results**

In order to investigate the tipping point at which meat eaters switch to a meatless diet and become non-meat eaters, I analyzed the data using logistic regression. The dependent variable is whether a participant consumes meat or not.

Frequencies of the scale of meat-related cognitive dissonance can be found in Tables 1 and 2 in the Appendix. Before applying the logistic regression with every seven independent variables included, I centered the values of the 5-point Likert answering scale of affordable alternatives to make it more apparent that the 3, now 0, stands for 'neither easy or difficult' and that higher than that is in favor and lower against finding it easy to find affordable alternatives in local grocery stores.

The significant predictors were cognitive dissonance ( $w(1) = 27.88, p = <.001$ ) and affordable alternatives ( $w(1) = 8.12, p = .004$ ). The rest of the predictors did not statistically predict whether a person follows one diet or the other. The results can be found in Table 3.

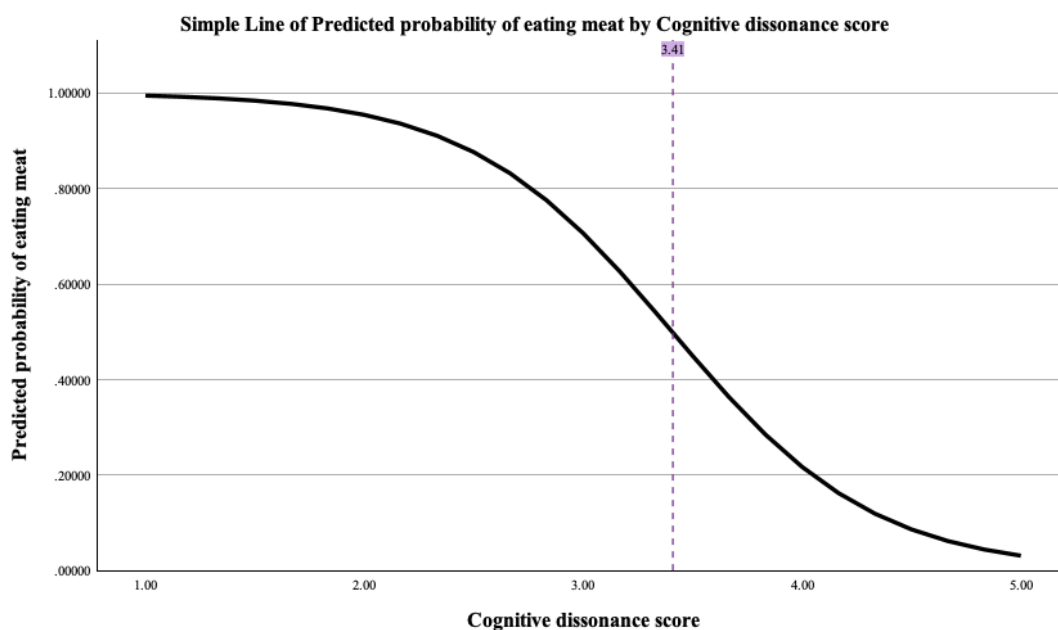
**Table 3***Logistic Regression Including the Seven Predictors*

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	0.03	0.03	0.82	1	.364	1.03
Gender(m)			0.04	2	.981	
Gender(f)	0.19	0.96	0.04	1	.846	1.21
Gender(n)	-17.95	40192.97	0.00	1	1.000	0.00
Cognitive Dissonance Score	-2.11	0.40	28.14	1	<.001	0.12
Religious Identity	0.06	0.30	0.04	1	.839	1.06
Peer Influence	0.04	0.31	0.01	1	.911	1.04
Affordable Alternatives	-1.24	0.43	8.12	1	.004	0.29
Health Perception	-0.41	0.36	1.27	1	.259	0.66
Constant	1.82	1.41	1.66	1	.198	6.16

I repeated the logistic regression with the significant variables one by one, the results of which can be found in Tables 4 and 5 in the Appendix. The corresponding graphs are presented in Figures 1 and 2, where the tipping points of cognitive dissonance ( $TP_{CD} = 3.41$ ) and affordable alternatives ( $TP_{AA} = 2.06$ ) are marked with a dotted line. The calculated tipping points indicated that people are at a 50% chance of switching to a meatless diet when experiencing slightly more than a moderate amount of cognitive dissonance and when indicating that it is extremely easy to find affordable alternatives in local grocery stores. Thus, cognitive dissonance emerged as a strong predictor of switching to a meatless diet, but affordable alternatives as a weak predictor even though it was significant. Of the 161 participants, 25.5% ( $n = 42$ ) scored above the tipping point for cognitive dissonance, experiencing enough cognitive dissonance to adopt a meatless diet. Additionally, 41.6% ( $n = 67$ ) scored at the maximum of finding it easy to find affordable alternatives. At this maximum lies the tipping point, which means that when experiencing maximal ease in finding affordable alternatives, someone reaches the point where there is a 50% chance of changing their diet.

**Figure 1**

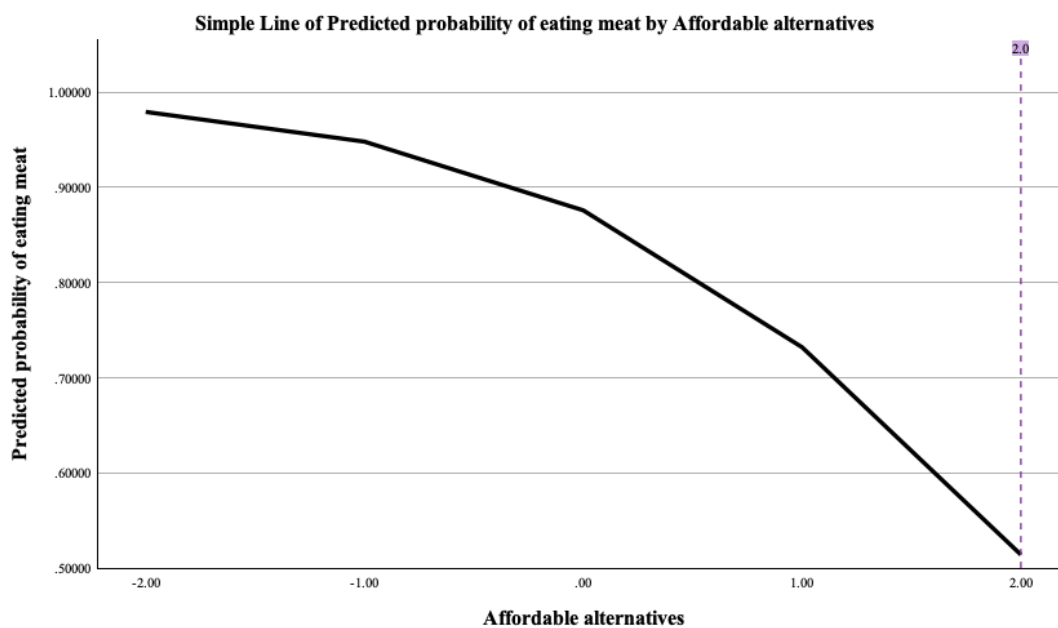
*Simple Line of Predicted Probability of Eating Meat by Cognitive Dissonance*



*Note.* 1 = none at all, 2 = a little, 3 = a moderate amount, 4 = a lot, 5 = a great deal

**Figure 2**

*Simple Line of Predicted Probability of Eating Meat by Affordable Alternatives*



*Note.* -2 = extremely difficult, -1 = somewhat difficult, 0 = neither easy nor difficult, 1 = somewhat easy, 2 = extremely easy



Notably, it was surprising that only two out of seven established predictors were statistically significant, suggesting that specific predictors correlated with each other and thus influenced or even falsified their relationships with the dependent variable. That made it difficult to conclude about the isolated effects of the different predictors on the choice of diet. Therefore, I used a Pearson correlation test (see Table 6) to examine the multicollinearity of the different predictors.

Age correlated slightly positively with religious identity ( $r(147) = .45, p = <.001$ ) and health perception ( $r(147) = .22, p = .007$ ) and slightly negatively with peer influence ( $r(147) = -.17, p = .044$ ). This indicates that older participants in this sample were more likely to identify as religious and agree that a plant-based diet is healthier than meat consumption. Also, they were more likely to disagree on being influenced by peers over time.

Furthermore, cognitive dissonance correlated slightly positively with affordable alternatives ( $r(159) = .24, p = .002$ ) and health perception ( $r(159) = .49, p = <.001$ ) and slightly negatively with peer influence ( $r(159) = -.2, p = .011$ ). That means if people experienced high cognitive dissonance, they tended to find it easy to find affordable alternatives (e.g., plant-based products) in their local grocery stores and tended to agree that plant-based products are healthier than meat-based products. The results also indicated that the higher the cognitive dissonance score, the less people agreed on being influenced by peers. These overlaps might have pushed some predictors out of the significance region.

**Table 6***Pearson Correlations of the Independent Continuous Variables*

Variable	<i>n</i>	1	2	3	4	5	6
1. Age	149	–					
2. Cognitive Dissonance Score	161	-.02	–				
3. Religious Identity	157	.45**	-.12	–			
4. Peer Influence	161	-.17*	-.20*	-.01	–		
5. Affordable Alternatives	161	.06	.24**	-.12	-.04	–	
6. Health Perception	161	.22**	.49**	-.05	-.06	.13	–

\* $p < .05$ . \*\* $p < .01$ .

## Discussion

The global shift towards reduced meat consumption and increased interest in plant-based alternatives is evident, with countries like India, the United Kingdom, and Germany showcasing distinct patterns in vegetarianism and the production of meat substitutes (Statista, 2023b). Despite these trends, understanding when and why individuals make this dietary shift requires more evidence. To address the central question of this paper – the extent to which age, gender, cognitive dissonance, religious identity, peer influence, the availability of affordable plant-based alternatives, and perceived health benefits influence the transition from a meat-based diet to a meatless diet – two distinct groups are identified: meat eaters (omnivores and pescatarians) and non-meat eaters (vegetarians and vegans).

Logistic regression analysis revealed cognitive dissonance and the availability of affordable alternatives as significant predictors of transitioning to a meatless diet. Based on Festinger's theory (1957), cognitive dissonance proved to be a robust predictor of dietary change. The results of the present study indicated that even a moderate amount of cognitive dissonance leads to people reaching the point where there is a 50% chance that they will give up meat consumption. That highlights the psychological impact of conflicting beliefs about

meat consumption and the potential effectiveness of interventions targeting cognitive dissonance to encourage dietary change. The availability of affordable plant-based alternatives was identified as another critical predictor. Participants were more inclined to adopt a meatless diet when finding it extremely easy to access affordable alternatives in local grocery stores. While significant, it is noteworthy that the predictive power of this factor reached its tipping point at the maximum ease of finding alternatives, suggesting that accessibility alone may not be sufficient to drive dietary change. Contrary to expectations, age, gender, religious identity, peer influence, and perceived health benefits were not significant predictors in the logistic regression analysis. This questions existing assumptions about the consistent impact of these factors across different population groups.

Acknowledging the complexity of dietary decisions, which are influenced by various individual, cultural, and contextual factors, is essential. Furthermore, as shown in the correlation analysis, these multidimensional factors influenced each other, making it more complex to decode the fundamental points at which predictors expect a 50% chance of a meatless diet.

Consistent with previous research, ethical considerations relating to environmental impact and animal welfare motivated dietary change (Ruby, 2012). Recognizing cognitive dissonance as a significant predictor reflects studies emphasizing the interplay of ethical concerns in decision-making (Harmon-Jones et al., 1999). That underscores the importance of interventions addressing the ethical dimensions of meat consumption. While previous research has indicated age-related differences in dietary motivations (Ruby, 2012; Schmid et al., 2017), age was not identified as a significant predictor in the current study. This discrepancy suggests that the influence of age on dietary decisions may vary in different cultural and demographic contexts. Thus, future research should further explore the nuanced relationship between age and dietary change. The importance of affordable alternatives is

consistent with studies that emphasize the importance of accessibility in shaping dietary choices (Allen, 2010; Reipurth et al., 2019). However, in the current study, this relationship was further elaborated by showing that the predictive power of accessibility reaches its tipping point at maximum ease. This nuanced understanding contributes to the ongoing discourse on the economic factors influencing dietary change. Adding to Rothgerber's (2013) exploration of gender dynamics, this study looks into how gender influences diet choices due to stereotypes. While previous research pointed to men's perceived challenges in switching to a plant-based diet, gender was not identified as a significant predictor in the current findings. That could suggest a potential change in the social perception and acceptance of different diets. However, gender as a categorical variable may not have a clear point of transition where people switch their habits. Gender might have acted as a moderator in the relationships between diet choice, cognitive dissonance, and affordable alternatives. Therefore, it might be beneficial to conduct further analyses on moderators as a suggestion for future research. Furthermore, the recognition of religious identity as a non-significant predictor contradicts the findings of Filippini and Srinivasan (2019) in the Indian context. This discrepancy suggests that the influence of religious identity on dietary decisions may vary in different cultural and geographical contexts. Also, the non-significant role of peer influence questions previous research findings that emphasize the influence of social networks, which indicates the need for further research (Cruwys et al., 2015; Salvy et al., 2012). Perceived health benefits were not identified as a significant predictor, which is consistent with the study's examination of the various aspects of health. While Lea and Worsley (2003) emphasized the health benefits of a vegetarian diet, this study suggests that more than health perceptions are needed. In summary, the current study is consistent with and extends previous research findings by providing nuanced insights into the complex interplay of factors that influence dietary

decisions. The results underline the need for context-specific interventions tailored to different cultural and demographic backgrounds.

Moreover, additional correlational analysis revealed that older individuals within the sample were more likely to identify as religious and perceive plant-based products as healthier while being less influenced by peers. On the other hand, individuals experiencing cognitive dissonance tended to discover affordable alternatives easily, perceived plant-based products as healthier, and resisted peer influence. This can lead to the assumption that those experiencing higher cognitive dissonance related to meat consumption have possibly already adopted a meatless diet, explaining their resistance to peer influence as a manifestation of stability in their values and choices. This subgroup is likely more informed about alternative dietary options and potential health concerns associated with meat consumption. Furthermore, it can be assumed that individuals experiencing cognitive dissonance may have specific health issues stemming from meat consumption, causing cognitive dissonance and contributing to their heightened awareness and resistance to external influences. The positive correlations between age and health perception, as well as cognitive dissonance and health perception, and the negative correlations between age and adapting to peers, as well as cognitive dissonance and adapting to peers, suggest potential confounding effects in understanding the distinct impacts of age and cognitive dissonance on health perception and perceived peer influences. Thus, the impact of age on health perception and perceived peer influence might be confounded by cognitive dissonance or vice versa.

Limitations may include the reliance on self-reported data and the use of single-item scales for some constructs since they lack validation in that other studies have not yet used them. Furthermore, it may be beneficial to enhance the language used in the survey to ensure its validity, considering the inclusion of many non-native English-speaking individuals, particularly those from German and Dutch backgrounds. In future studies, it is essential to

provide versions of the survey in English, German, and Dutch, as these languages were prevalent in the social circles where the survey was distributed. This approach can prevent the use of translation tools, which may introduce unintended biases that could undermine the research. Another limitation was the question in the survey about the frequency of eating meat and seafood. The available options were ‘never’, ‘once a week’, ‘2-3 times a week’, and so on, with the highest selection being ‘more than once a day’. However, there was a noticeable gap between ‘never’ and ‘once a day’, which should have been filled with additional choices like ‘once a month’ and ‘once a year’. This created problems with the resulting data, as individuals who consume, for example, meat twice a year selected ‘never’ and were incorrectly grouped with non-meat eaters rather than meat eaters.

Despite some limitations, understanding the importance of cognitive dissonance and affordable alternatives can form a basis for change. Strategies like educational campaigns that emphasize ethical and environmental concerns related to meat consumption can be used to target cognitive dissonance. Efforts to make plant-based alternatives more accessible and affordable can also help people switch to meatless diets more easily.

In conclusion, this paper aimed to investigate the factors influencing the transition from a meat-based to a meat-free diet, considering age, gender, cognitive dissonance, religious identity, peer influence, availability of affordable plant-based alternatives, and perceived health benefits. The analysis revealed that cognitive dissonance and the availability of affordable alternatives were significant predictors of switching to a meat-free diet, highlighting the psychological impact of conflicting beliefs regarding meat consumption, as even moderate levels of cognitive dissonance were associated with a 50% likelihood of people abstaining from meat consumption. Thus, there is the potential efficacy of interventions targeting cognitive dissonance to promote dietary change. In addition, participants were more likely to adopt a meat-free diet when they had effortless access to affordable alternatives at

local grocery stores. Contrary to expectations, age, gender, religious identity, peer influence, and perceived health benefits were not identified as significant predictors, suggesting that the influence of these factors on dietary decisions may differ across cultural and demographic contexts. Future research should further investigate the potential moderating role of gender in the relationships between dietary choices, cognitive dissonance, and affordable alternatives.

To sum up, strategies focusing on cognitive dissonance and improving the accessibility of affordable plant-based alternatives may motivate people to transition from a meat-based to a meat-free diet. Understanding these factors provides valuable information for developing effective interventions to reduce meat consumption and promote a more sustainable, plant-based diet.

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## Appendix

**Table 1**

*Frequencies of Cognitive Dissonance: To Which Extent do you Expect to Experience the Following Emotions When you Choose a Meal With an Animal Product?*

Source	Uncomfortable		Uneasy		Bothered	
	n	%	n	%	n	%
None at all	61	37.9	66	41	55	34.2
A little	36	22.4	36	22.4	50	31.1
A moderate amount	33	20.5	32	19.9	26	16.1
A lot	14	8.7	8	5	11	6.8
A great deal	17	10.6	19	11.8	19	11.8
Total	161	100	161	100	161	100

*Note.* N = 161

**Table 2**

*Frequencies of Cognitive Dissonance: To Which Extent do you Expect to Experience the Following Emotions When you Choose a Meal With Meat?*

Source	Uncomfortable		Uneasy		Bothered	
	n	%	n	%	n	%
None at all	43	26.7	45	28	41	25.5
A little	34	21.1	32	19.9	32	19.9
A moderate amount	20	12.4	25	15.5	24	14.9
A lot	21	13	17	10.6	19	11.8
A great deal	43	26.7	42	26.1	45	28
Total	161	100	161	100	161	100

*Note.* N = 161

**Table 4***Variables in the Equation: Cognitive Dissonance*

	B	S.E.	Wald	df	Sig.	Exp(B)
Cognitive Dissonance Score	-2.16	0.35	39.30	1	<.001	0.12
Constant	7.36	1.15	41.16	1	<.001	1570.14

**Table 5***Variables in the Equation: Affordable Alternatives*

	B	S.E.	Wald	df	Sig.	Exp(B)
Affordable Alternatives	-0.95	0.24	16.01	1	<.001	0.39
Constant	1.95	0.38	26.07	1	<.001	7.05