Vegetari-**Yes**

A Study on the Motivations for Dietary Choices

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Abstract

To avoid disastrous environmental problems in the nearby future, the reduction of greenhouse gas emissions is necessary. A sector majorly responsible for the emission of greenhouse gasses is the meat industry. It is therefore of critical importance to significantly reduce individuals' meat consumption. In the current study, we examine the psychological predictors of willingness to reduce or completely stop meat consumption. The tested psychological factors are health, environmental, instrumental, social and habitual motives to stop or reduce eating meat, problem awareness, knowledge and health, environmental, instrumental and symbolic attributes of a vegetarian diet. Results reveal that symbolic and instrumental attributes, problem awareness and environmental motives are the most important predictors for people's willingness to stop their meat consumption. The most important predictors for the willingness to significantly reduce meat consumption were social and environmental motives. By finding out what would motivate people for their willingness to reduce or stop meat consumption, policy recommendations have been developed to reduce meat consumption and thus the greenhouse gas emissions in the Netherlands. These policies should focus on increasing the action-related knowledge on the consequences of meat consumption (PA) of consumers, favourable instrumental attributes for vegetarian diets (e.g. taxing meat production) and symbolic based advertisement of vegetarian products and diets.

Keywords: Motivations, Vegetarianism, Behaviour change, Meat consumption

Acknowledgements

Introduction

Destructive environmental problems will occur in the nearby future if greenhouse gas emissions increase at the current rate (Tseng, 2017). Due to human activities the climate on earth has changed over the past century (Bord, O'Connor, & Fisher, 2000). The climate change resulting from increased greenhouse gas levels in the atmosphere leads to floods, droughts and reduced availability of fresh water. All this means a threat to human safety as well as food security (Meah & Sharma, 2022). Besides these environmental disasters, climate change also has its influence on health. A clear example is the increased death rate as a result of the changing temperatures on earth (Christidis, Mitchell, & Stott, 2019). As households account for a great share of CO2 emissions, it is necessary for consumer and household behaviour to change on a short-term (Gwozdz, Reisch, & Thøgersen, 2020). A particularly relevant consumer behaviour that needs change is meat consumption. Notably, the production of meat is contributing between 15% and 24% of the total greenhouse gas production worldwide (Fiala, 2008). Research has concluded that emissions from the same-calory diets of meat- and fish eaters cause higher greenhouse gas emissions compared to diets from people with a vegetarian diet (Eshel & Martin, 2006). Making this matter more serious is the problem of the world's increasing population which is expected to reach 9.5 billion in 2050. This increase in population results in an increase in food demand as well (Meah & Sharma, 2022). In order to fight global warming and disastrous environmental problems, a large reduction of meat consumption and a shift towards adoption of vegetarian diets is needed (Rosi et al., 2017; Tseng, 2017). Many experts suggest that action should be taken on the individual as well as on the national level in order to decrease the anthropogenic contribution to climate change (Bord et al., 2000).

With the term 'vegetarian' the current research refers to a lacto-ovo vegetarian diet. This diet excludes the consumption of meat and fish, but includes dairy products and eggs (Phillips, 2005). The group of people willing to stop or significantly reduce their meat consumption for

environmental reasons is still a minority (Sanchez-Sabate & Sabaté, 2019). It is challenging to change consumers' food behaviour because dietary choices are based on habits and social norms. A change such as a dietary change, only occurs when a positive attitude based on reasons and motivations is adopted. For vegetarians, the attitude towards a vegetarian diet and therefore dietary decisions are mostly motivated by health and ethical motivations and reasons (Sanchez-Sabate & Sabaté, 2019). Other research shows that people might resist adopting pro-environmental behaviours because of financial reasons or comfort (Steg, Perlaviciute, van der Werff, & Lurvink, 2014). For instance, if changing into a vegetarian diet is perceived to be inconvenient or costly, it is less likely that people will consider changing their diets. As such, previous research shows that different motivations might be at play affecting consumer decision making in the domain of acting pro-environmentally (Noppers, Keizer, Bolderdijk, & Steg, 2014). This leads to the following research question: *How can the number of people following a vegetarian diet be increased?*

We reason that the perceived attributes associated with a vegetarian diet as well as motivations would play a key role in appealing to the different motivations of people when deciding to change their diets. Previous research by Noppers, Keizer, Bolderdijk and Steg (2014) indeed shows that the attributes of sustainable innovations determine whether these are adopted or not. Three attributes were used as a predictor of the adoption of environmentally friendly products: instrumental, environmental and symbolic attributes. In the current research, we included these three attributes in order to find out whether people are willing to reduce their meat and/ or fish consumption or if they would be willing to adopt a vegetarian diet. In addition, we focus on health attributes associated with vegetarian diets, as these appeared to be important characteristics of vegetarian diets as well (Boustani & Guiné, 2020; Saintila, Lozano López, Ruiz Mamani, White, & Huancahuire-Vega, 2020). On top of this, we also investigate the role of problem awareness and knowledge in predicting reducing or stopping to eat meat. Finally,

on top of the aforementioned, we also examine motives including health, environmental, instrumental and social motives as well as habits. In the following, we discuss our main study variables in length.

Instrumental attributes

According to Noppers and colleagues (2014), instrumental attributes relate to the functional outcomes when using environmental friendly products or behaving in an environmental friendly way. These outcomes can either be positive or negative and relate to for example the purchase price of a product. It is often argued that these instrumental attributes are of key importance on adopting products and thus consuming a vegetarian diet. Research on comparing vegetarian and non-vegetarian diets shows that the percentage of non-vegetarians who were sometimes not able to afford a well-balanced meal was higher than the vegetarians that indicated this problem. Even though it is often assumed, this research proofs the fact that vegetarian diets are not necessarily more expensive than non-vegetarian diets (Storz, Müller, & Lombardo, 2022). A different study supports this finding by stating that obtaining a kcal of energy from the cheapest raw meat product is more expensive than consuming a kcal from an expensive raw plant-based product. However, costs are added to the products when these are being processed and it happens to be that plant-based products undergo more processing compared to animal-based products. Even though the processing reduces the price difference, plant-based nutrients remain less expensive than meat products (Lusk & Norwood, 2009). It is thus proven by various different researches that vegetarian diets reduce food costs compared to non-vegetarian diets (Lusk & Norwood, 2009; Storz et al., 2022). Seemingly contradictory, the evaluation of instrumental attributes seems to be a less significant predictor of adoption behaviour than it is often assumed, possibly because people are unaware of their true motives, and other attributes might have a stronger influence on decision making (Noppers et al., 2014).

Environmental attributes

One of these additional attributes is the environmental attributes. These relate to the positive as well as negative outcomes of the adoption of sustainable products on the environment. Research on environmental attributes shows that people take environmental consequences into account during the decision making process (Noppers et al., 2014). People can adopt or refrain from pro-environmental behaviour based on four values that are suggested to be most important. (Steg et al., 2014). One of these important predictors for a possible adoption of environmental friendly behaviour is biospheric values. When people hold high biospheric values personal norms are activated which motivates people to consider the environmental consequences of their actions and possible solutions to reduce this negative impact (Ünal, Steg, & Gorsira, 2018). Research has thus revealed that the environmental attributes can be an important predictor for the engagement in pro-environmental behaviour. It shows that people who hold strong environmental values are more willing to adopt pro-environmental behaviour. However, the examination of the importance of environmental attributes was mostly done without controlling for other attributes (Noppers et al., 2014). As following a vegetarian diet has clear environmental implications, we include perceptions about environmental attributes as a key characteristic of vegetarian diets. By including other attributes in our study as well, we aim at addressing this lack of research.

Symbolic attributes

The last important attributes mentioned in the study of Noppers and colleagues (2014) is the symbolic attributes which demonstrate the positive and negative outcomes of using and owning sustainable products or engaging in sustainable behaviour for one's social status and identity. The symbolic attributes might be positively related with behaving in a sustainable way as this

behaviour enables a person to signal their status and identity (Noppers et al., 2014). Giving off this positive signal to others is found to be very important to individuals. By expressing oneself, a person is likely to show an idealized impression of oneself by accentuating specific positive facts and concealing the negative ones (Goffman, 1959). Besides the motivation for oneself to be perceived in a positive way by others, we are also motivated to perceive ourselves in a positive manner (Noppers et al., 2014). The Self-congruity Theory (Sirgy, 1986) supports the statement that symbolic attributes are of major importance for behaviour as individuals prefer to purchase products and engage in behaviour that have perceived personality traits according to their own positive self-image. Often, individuals choose for behaviour that improves or validates their perception on the self (Shin, Hancer, & Song, 2016). These symbolic attributes can thus be very important in performing sustainable behaviour, especially because they can counterbalance the potential negative sides from the instrumental attributes. Behaving in a sustainable manner can be costly (financially or behavioural costs) and thus hold rather negative instrumental attributes. However, because of these higher costs it can boost one's status and hence indirectly make the sustainable behaviour more attractive. Interestingly, when asking directly about whether symbolic factors are important to motivate, participants tend to indicate that symbolic motives are not of importance when considering adopting sustainable behaviour. This might be because, when asked directly, people are reluctant in admitting that they behave environmentally friendly in order to feel good about themselves or to show off to others. When asked indirectly, however, via asking about evaluations of symbolic attributes and using it as a predictor, it was found that symbolic attributes had greater influence on adopting sustainable behaviour as compared to symbolic motives (Noppers et al., 2014). Based on previous research that highlights the significance of symbolic attributes on the adoption of sustainable behaviour, we include these in our study.

Health attributes

Besides the mentioned attributes, dietary habits are also related to health attributes. As cardiovascular diseases (CVDs) are predicted to be the leading global cause of mortality by 2030 and unhealthy dietary behaviour is likely to be the most important risk factor for these cardiovascular diseases, health is important to take into account when predicting behaviour on dietary choices (Morin, Michaud-Létourneau, Couturier, & Roy, 2019). Vegetarian diets are often associated with positive health outcomes relating to a healthier amount of calories and less cholesterol. Besides this, comparing vegetarians and non-vegetarians, it turns out that vegetarians consume significantly more vegetables and fruits compared to the non-vegetarian individuals. Adding on to this, as has been aforementioned, amongst the non-vegetarians there is a significantly higher proportion of individuals being unable to afford a well-balanced diet (Storz et al., 2022). Although people are aware of healthy or unhealthy dietary choices this does not necessarily indicate that people eat more healthy (Boustani & Guiné, 2020). However, other research on the relation between health and dietary habits found that mostly adults engage in vegetarian diets, probably because this age group needs to consciously take care of their health in order to avoid CVDs (Saintila et al., 2020). As previous studies result in different conclusions regarding health attributes, this paper aims at including health attributes as a predictor for dietary choices.

Problem awareness

As mentioned afore, adults are expected to have a relatively high awareness of the negative effects of dietary habits on their health (Saintila et al., 2020). This phenomenon of being highly aware of the negative consequences of certain behaviour is referred to as the problem awareness (PA). Research shows that a higher problem awareness is related to a personal belief that the

individual has the ability to contribute to the solution of the negative impact of their actions. Hence, it can be stated that the more people are aware of the negative environmental consequences resulting from their actions, the more they believe they can help to solve these problems by engaging in more sustainable behaviour. This strengthens the individual's moral obligation to engage in this sustainable behaviour and thus encourages actual adoption of the behaviour (Ünal et al., 2018). As problem awareness is a key trigger of moral normative behaviours, it is important to take this into account when examining intentions to stop or reduce meat consumption.

Knowledge

The fifth predictor tested in the current study is knowledge of the problem. Typically, knowledge is perceived necessary for someone's behaviour (Frick, Kaiser, & Wilson, 2004). It has been claimed that behavioural intentions can be predicted by accurate knowledge on global warming (Bord et al., 2000). Interestingly, while a basic understanding of climate change is sufficient in order to maintain levels of environmental concerns, knowledge does not necessarily motivate individuals to adopt sustainable behaviour (Bord et al., 2000). Basic knowledge thus seems to not motivate people to the extent they would change their behaviour (Ünal et al., 2018). Research shows that especially action-related knowledge and effectiveness knowledge has an effect on behaviour. Action-related knowledge touches upon action points that can easily be taken to combat environmental problems. Effectiveness knowledge addresses the environmental gains or benefits of certain behaviour (Frick et al., 2004). We are keen to test whether knowledge on the CO_2 emissions resulting from the meat industry plays any role when it comes to reducing or stopping meat consumption.

Motives

Research shows that people's behaviour change is influenced by individual's internal as well as external environment. Dietary behaviour, seen as a social interaction, may thus bring up motives promoting individual's self-interest or serving others (Bartke, Bosworth, Snower, & Chierchia, 2019). Research on dietary changes shows that the motives from the internal environment might be more effective as a driver of healthy dietary behaviour. In addition, research on motives of dietary change indicates that motivations on social norm and social image are of lowest importance to people (Werner & Risius, 2021). However, it might be difficult for people to recognize what motivation truly drives their behaviour. People are thus often not aware of their true motivation for certain behaviour or they are unwilling to acknowledge them due to different reasons (Noppers et al., 2014). For instance, it was found that people might indicate that instrumental motives are very important to them, while instrumental attributes hardly predict buying intentions for electric vehicles as discussed before (Noppers et al., 2014). There were however, motives that were found to predict sustainable actions in a consistent way, such as environmental motives. Indeed, in the study of Noppers et al., the researchers found that people say environmental motives are important to them, and in line with that environmental attributes were good predictors of their electric vehicle purchase decisions. In the same study, as mentioned before, it is found that symbolic attributes are better predictors for the adoption of sustainable behaviour than symbolic motives. In the current study, we reason that other motives such as social, health and habitual motives are also relevant to measure. Habits are included in the factor motives as habitual behaviour motivates individuals without them being aware of the actual motivation (Segovia-Villarreal & Rosa-Díaz, 2022). We are therefore interested in using motives in the current study in order to analyse whether motives are indeed right predictors of peoples' willingness to significantly reduce or completely stop

their meat consumption and to observe whether there are differences between motives and attributes in predictive power.

Habits

As mentioned, the current research examines habits as a predictor for willingness to reduce or stop meat consumption as it is described that habitual behaviour plays a key role in making dietary decisions (Sanchez-Sabate & Sabaté, 2019). As habitual behaviour requires very low involvement because the products have been purchased for a long time, changing this behaviour requires a high involvement level which changes the habitual behaviour into complex behaviour. This complexity relates to learning about new food-related products and their differences (Segovia-Villarreal & Rosa-Díaz, 2022). The consumption of meat can be seen as a habit and it can thus be a strong barrier for behaviour change (Hielkema & Lund, 2021). As habits seem an important factor in dietary choices, we decide to include habits as a motive for possible prediction of people's willingness to reduce or stop their meat consumption.

Social motives

As mentioned before, the opinions of others have a huge effect on an individual's decision making processes (Goffman, 1959). This phenomenon referred to as social influence describes why an individual changes behaviour in order to follow the group norm or the majority perspective (Cialdini, 2006). Studies on energy conservation have shown that participants were extremely influenced by the behaviour of their neighbours, even if the participants themselves strongly believed they would not at all be influenced (Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008). Focusing on dietary decision making, research shows that food choices are closely associated with the society surrounding the individual (Boustani & Guiné, 2020). As

research shows social motives can be of importance in decision making, this motive is included in the current study to examine its influence on dietary decisions.

Current study

In the current study, we will build on existing research and develop a comprehensive model depicting different factors that predict willingness to change one's meat-based diet. More specifically, we will test the role of different attributes of a vegetarian diet (instrumental attributes, environmental attributes, symbolic attributes and health attributes) as well as the role of problem awareness, knowledge and various motives (instrumental motives, environmental motives, health motives, social motives and habits) in predicting willingness to stop or reduce meat consumption. Based on previous studies as discussed above, we hypothesize that:

H1: The higher the problem awareness on the consequences of meat consumption, the higher the willingness to adopt a vegetarian diet or to significantly reduce meat consumption.

H2: Knowledge on the consequences of meat consumption will not be a significant predictor of an individual's willingness to reduce or stop their meat consumption.

H3: Environmental, health and symbolic attributes will have a positive relationship with the willingness to reduce or stop meat consumption.

H4: Environmental, health and social motives as well as habits are weaker predictors for the willingness to stop or reduce meat consumption than attributes.

Methods

Participants

The participants for the current research were meat-consuming persons who have been reached through various social media platforms to fill in the survey. After removing incomplete responses and duplicates, 106 complete survey results have been received. A slight majority of the participants identified as male (65) compared to 41 participants who identified as female. Most participants (40%) indicated they consume meat and/ or fish 3 to 4 days per week. 28% percent of the participants indicated they consume meat and/ or fish every day of the week and the smallest group (3%) filled in they do not consume meat and/ or wish weekly. The mean age of participants was 39 years (SD = 17.60) . Most participants mentioned as main motivation to consume meat and/ or fish to be taste (48%) followed by habits (23%). Health was mentioned as main reason to consume meat and/ or fish by a small minority (15%) as well as social reasons (5%).

Procedure

The current research used quantitative, deductive research methods. By the use of Qualtrics, an anonymous link to an online survey has been created, which has been spread through different social media platforms being Facebook, Instagram LinkedIn and WhatsApp so the survey would reach many different people. The survey was created in both Dutch and English in order to reach a sufficient amount of participants. Informed consent has been obtained from all participants before starting the survey. Participants were made aware that their answers would not be judged and their data would stay anonymous.

The survey was built up in different parts (See Appendix A). The first part asked demographic questions including whether participants followed a vegetarian diet or not. By asking this

question, we made sure that the answers of the target group (of non-vegetarians) can correctly be analysed and the survey is not mistakenly filled in by vegetarians which would skew the results. Vegetarian participants were directed to the end of the survey as they did not fall in the targeted participant group. Non-vegetarians continued with the rest of the questionnaire. In the second part participants filled in the rest of the questionnaire. It took approximately 10 minutes to finalize the questionnaire.

Measures

Demographics

Firstly, participants were asked to indicate how many days a week they consume meat and/ or fish (Not every week – 1 or 2 days a week – 3 or 4 days a week – 5 or 6 days a week – 7 days a week) followed by a multiple choice question indicating their main reason to consume meat and/ or fish (Habits/ Social factors/ Health factors/ Taste). The third part of the survey included questions about the willingness to significantly reduce meat consumption or the willingness to completely switch to a vegetarian diet as well as attributes of a vegetarian diet, problem awareness and knowledge.

Motives

Participants evaluated the reasons that would motivate them to stop or reduce their meat consumption. This was done by using a scale with nine items measuring instrumental motives, environmental motives, social motives, health motives and habits. A 5-point Likert scale was used indicating whether they agree or disagree with the items (1= Completely disagree to 5= Completely agree). Instrumental motives were measured with 4 statements (e.g. 'I would significantly reduce or stop my meat consumption if it would be cheaper to follow a (partial)

vegetarian diet'). The subscale had a good internal consistency (willingness to reduce meat consumption Cronbach's alpha= .80, *M*= 3.23, *SD* = .90 and willingness to stop meat consumption Cronbach's alpha= .89, *M* = 2.90, *SD* = .98). Social motives were measured with two items (e.g. 'I would significantly reduce or stop my meat consumption if my partner would follow a vegetarian diet'. The subscale of the social motives had a good internal consistency (willingness to reduce meat consumption Cronbach's alpha = .82, *M* = 3.24, *SD* = 1.03 and willingness to stop meat consumption on Cronbach's alpha= .85, *M* = 2.83, *SD* = 1.08). Environmental motives were measured with the item 'I would significantly reduce or stop my meat consumption if it was proven to be better for the environment' (willingness to reduce meat consumption *M* = 3.27, *SD* = 1.00 and willingness to stop meat consumption *M* = 2.77, *SD* = 1.05). The health motives were measured with one item as well which was 'I would significantly reduce or stop my meat consumption if it was proven to be healthier for me' (willingness to reduce meat consumption *M* = 3.34, *SD* = .96 and willingness to stop meat consumption *M* = 2.67, *SD* = 1.04). Habits were measured with one item being 'I would significantly reduce or stop my meat consumption if I would have been raised without consuming meat and/ or fish' (willingness to reduce meat consumption *M* = 3.59, *SD* = 1.00 and willingness to stop meat consumption *M* = 3.24, *SD* = 1.18).

Attributes of a vegetarian diet

Next, all meat-consuming participants evaluated nine statements about vegetarian diets based on various attributes being health attributes, environmental attributes, instrumental attributes and symbolic attributes. For these items, participants were asked to solely evaluate a vegetarian diet without the question being in relation with the participants' willingness to stop or reduce their meat consumption. Again, a five-point Likert scale was used in order to indicate whether participants agree with the characteristic of a vegetarian diet or not (1 = Completely agree, 5 =

Completely disagree). Before the analysis, items were recoded such that higher means indicated a stronger agreement that vegetarian diets possess these attributes. Instrumental attributes were measured with four statements (e.g. 'A vegetarian diet would be affordable for me'.). The subscale had a sufficient internal consistency (Cronbach's alpha = .69, $M = 2.89$, $SD = .65$). Symbolic attributes were measured with two items (e.g. 'A vegetarian diet would boost my status'). The subscale had an internal consistency of .36 Cronbach's alpha ($M = 2.13$, $SD = .71$). Environmental attributes were also measured with two items and had a slightly higher internal consistency (Cronbach's alpha = .56, $M = 3.44$, $SD = .76$). Lastly, health was measured with one attribute stating 'A vegetarian diet would be healthy' ($M = 3.35$, $SD = .76$).

Problem Awareness

We measured problem awareness by asking the participants about their concerns and beliefs relating to the environment and animal wellbeing. Three items were used (e.g. 'I feel concerned about the environment' and 'I am concerned about animal wellbeing'). Participants indicated whether they agree or disagree with the items by using a 5-point Likert type scale (1= Completely agree, 5 = Completely disagree). Before the analysis, items were again recoded such that higher means indicated a stronger problem awareness of the participant. The internal consistency of the items measuring problem awareness was sufficient (Cronbach's alpha = .59, $M = 3.75$, $SD = .64$).

Knowledge

The last question touched upon the participants' knowledge ($M = 47.17$, $SD = 21.50$) of the share of meat consumption in the total greenhouse gas emissions worldwide. By a slider question, participants could indicate how much they thought the share of meat consumption to

the total greenhouse gas production was. The range of the slider was zero to one hundred in which 100 indicated meat consumption was responsible for the total greenhouse gas emission worldwide.

Dependent variables

This model tested two dependent variables, being the willingness to stop eating meat and/ or fish ($M = 2.22$, $SD = .91$) and the willingness to significantly reduce the consumption of meat and/ or fish ($M = 3.52$, $SD = 1.03$). Responses were given by using a 5-point Likert scale (1= Completely disagree, 5= Completely agree) to indicate their willingness to perform these actions. The higher the mean of the dependent variables, the higher their willingness to significantly reduce meat consumption or to stop eating meat.

Analysis

By gathering all results in Qualtrics and downloading them as an Excel document, we first carried out a correlations analysis in STATA to inspect the relationships between study variables. Second, we carried out a regression analysis in STATA, whereby we used the willingness to start following a vegetarian diet and the willingness to reduce eating meat and/ or fish as dependent variables.

Results

We first checked the correlations between main study variables (see Table 1). Except from habits and knowledge as well as habits and instrumental attributes all variables correlated in the expected direction. The strongest correlations were found between environmental attributes and

problem awareness, environmental motives and health motives and environmental attributes and social motives. Both the willingness to reduce meat consumption and to stop meat consumption had strong correlations with environmental motives. Slightly weaker correlations were found between variables including the willingness to reduce meat consumption and social motives and the willingness to stop meat consumption and health motives. Furthermore, knowledge on the amount of greenhouse gas emission resulting from meat consumption did not strongly correlate with any of the variables.

Table 1. Correlations Between Variables

	1	2	3	4	5	6	7	8	9	10	11
1. PA	1.00										
2. Knowledge	.18										
3. Health motives	.32**	.05									
4. Environmental motives	.39**	.20*	.57**								
5. Instrumental motives	.16	.01	.33**	.36**							
6. Social motives	.31**	.001	.19*	.28**	.43**						
7. Habits	.05	-.01	.14	.14	.43**	.43**					
8. Health attributes	.28**	.22*	.11	.31**	.22*	.19	.08				
9. Environmental attributes	.49**	.12	.15	.24*	.22*	.50**	.25*	.33**			
10. Instrumental attributes	.35**	.12	.27**	.24*	.11	.25**	-.002	.27**	.40**		
11. Symbolic attributes	.20*	.04	.15	.20*	.23*	.32**	.10	.10	.33**	.30**	
12. Willingness to reduce meat consumption	.15	.15	.33**	.46**	.28**	.44**	.23*	.27**	.30**	.24*	.12
13. Willingness to stop meat consumption	.28**	.18	.38**	.49**	.27**	.32**	.10	.15	.32**	.35**	.41**

Note. ** = p < .01 and *= p <.05

Second, we calculated the mean scores of the different attributes associated with vegetarian diets. Visual inspection of Figure 1 would show how participants rated the attributes of a vegetarian diet. It can be seen that participants agree mostly with the positive environmental

attributes (*M* = 3.44, *SD* = .76) and health attributes (*M* = 3.35, *SD* = .76) of vegetarian diets. Participants agree to a lesser extent that a vegetarian diet would score high on instrumental attributes (*M* = 2.89, *SD* = .65) and symbolic attributes (*M* = 2.13, *SD* = .71).
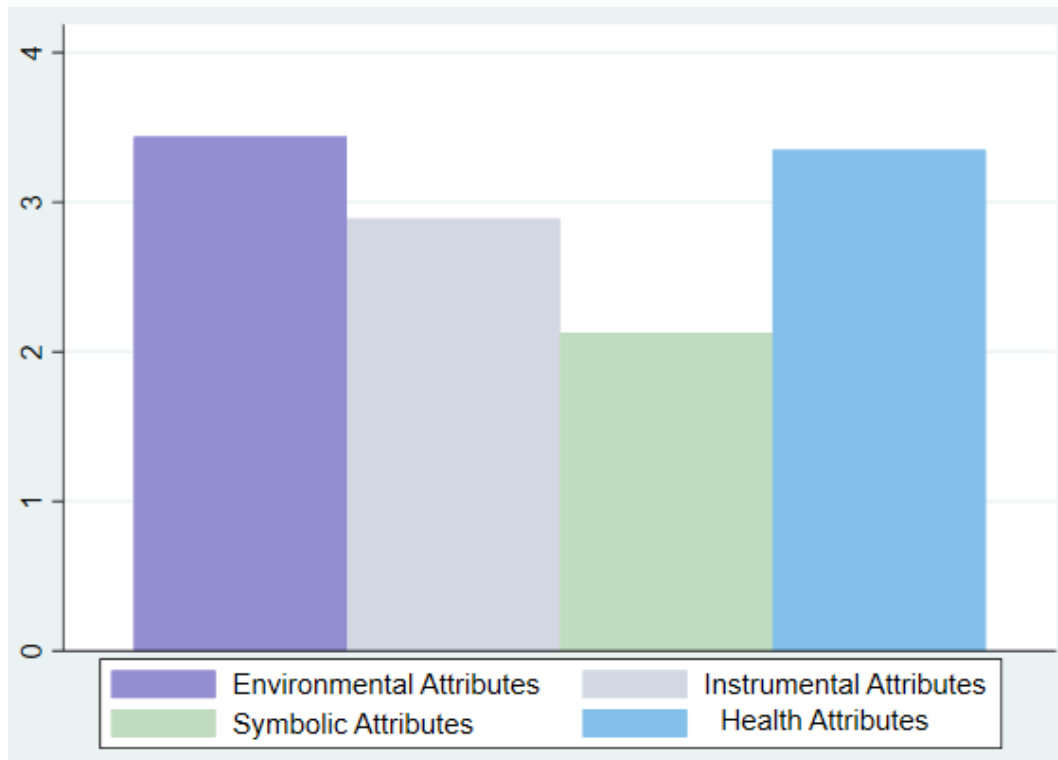
Figure 1: Ratings of different positive attributes of a vegetarian diet (0- Completely disagree, 4-completely agree)

Next, we calculated the means for motives to stop or reduce meat consumption. Visual inspection reveals that habits (*M* = 3.59, *SD* = 1.00) and health motives (*M* = 3.34, *SD* = .96) were the main reasons that might motivate people to reduce their meat consumption as participants had the highest mean of agreeing to these motives. People rated instrumental motives to be lowest in terms of reasons to consider reducing meat consumption (*M* = 3.23, *SD* = .90). For the willingness to adopt a completely vegetarian diet, participants indicated that again habits (*M* = 3.24, *SD* = 1.18) are most important motives. However, for the willingness to stop, instead of health motives (*M* = 2.67, *SD* = 1.04) instrumental motives (*M* = 2.89, *SD* = .98) are of higher importance, based on the visual inspection of mean scores.

Next, we carried out regression analyses to test our hypotheses. Table 2 presents the results of the regression analyses where we used willingness to reduce meat consumption as the dependent variable, and the remaining study variables as predictors. In Table 3, the willingness to stop meat consumption was the dependent variable.

Table 2. Multiple Regression Analyses Testing Whether the Willingness to Reduce Meat Consumption would Be Predicted by any of the Various Independent Variables.

	β	T	p	Adjusted R^2	F	df
DV: Willingness to reduce meat consumption						
PA + Knowledge				.02	2.06	(2, 103)
Problem Awareness	.13	1.31	.195			
Knowledge	.15	1.30	.199			
Motives				.28	9.36	(5, 100)
Health motives	.09	.85	.395			
Instrumental motives	-.02	-.22	.83			
Environmental motives	.32	3.08	.003			
Social motives	.32	3.24	.002			
Habits	.05	.51	.61			
Attributes				.10	3.86	(1, 101)
Environmental attributes	.20	1.84	.07			
Instrumental attributes	.12	1.11	.27			
Symbolic attributes	.004	.04	.97			
Health attributes	.17	1.70	.09			

In predicting willingness to reduce meat consumption (see Table 2), problem awareness (β = .13) and knowledge (β= .15) together explained 2% of the variance in willingness to reduce meat consumption. However, none of the predictors significantly predicted reducing meat

consumption. Among the five motives, the explained variance was 28%. The strongest predictor was social motives ($\beta = .32$, $p < .002$) followed by environmental motives ($\beta = .32$, $p < .003$): the more positive environmental and social motives were, the higher the participants' willingness to significantly reduce their meat consumption. Health motives, instrumental motives and habits were not significant predictors. In the third regression analysis, the four attributes together explained 10% of the variance, however none of the attributes was statistically significant in predicting reduced meat consumption. Even though only marginally significant, environmental attributes ($\beta = .2$, $p = .07$) would be the strongest predictor among the attributes. These findings do not support hypothesis 1 as problem awareness is not a significant predictor for the willingness to reduce meat consumption. As knowledge is also not a significant predictor, hypothesis two can be accepted as it is thus not a significant predictor for the willingness to reduce meat consumption. The third hypothesis has to be refused as none of the attributes is a significant predictor of the willingness to reduce meat consumption. The last hypothesis can be partially accepted as environmental motives are a stronger predictor for the willingness to reduce meat consumption than the environmental attributes.

Next, we repeated the regression analyses by using willingness to stop consuming meat as the dependent variable. The results of these regression analyses are visualized in Table 3.

Table 3. Multiple Regression Analyses Testing Whether the Willingness to Stop Meat Consumption would be Predicted by Various Independent Variables.

	β	T	p	Adjusted R²	F	df
DV: Willingness to stop meat consumption						
PA + Knowledge				.10	5.43	(2, 103)
Problem Awareness	.26	2.71	.008			
Knowledge	.13	1.36	.18			
Motives				.32	10.8	(5, 100)
Health motives	.22	1.85	.07			
Instrumental motives	-.08	-.63	.53			
Environmental motives	.34	2.55	.01			
Social motives	.15	1.26	.21			
Habits	.05	2.3	.62			
Attributes				.21	8.08	(4, 101)
Environmental attributes	.13	1.24	.22			
Instrumental attributes	.20	2.08	.04			
Symbolic attributes	.31	3.28	.001			
Health attributes	.03	.28	.78			

For this dependent variable, problem awareness ($\beta = .26$) and knowledge ($\beta = .13$) together explained 10% of the variance. Where problem awareness was not a predictor of willingness to reduce meat consumption, this variable was a strong predictor of willingness to stop eating meat ($\beta = .26$, $p < .008$). As such, hypothesis 1 is fully supported. As knowledge ($\beta = .13$, ns.) is not significant, hypothesis 2 is fully supported as well. The 5 motives together explained 32 % of the variance. For these motives, the only significant predictor was environmental motives ($\beta = .34$, $p < .01$). When looking at attributes these together explained 21% of the variance.

Instrumental ($\beta = .20$, $p < .04$) and symbolic ($\beta = .31$, $p < .001$) attributes were significant predictors. We can therefore conclude that these results only partially support hypothesis 3. The same partial acceptance for hypothesis 4 can be observed as for health and environmental, the motives are stronger predictors than the attributes. For the instrumental factor the hypothesis was correct as the instrumental attributes are a stronger predictor than the instrumental motives.

Discussion

In the current research, we examined the strongest predictors of willingness to reduce or stop meat consumption. We did this in order to create an overview leading to the opportunity to create an intervention so vegetarian dietary lifestyles would be more likely to be adopted. This is of major importance as meat production and consumption majorly contributes to the emission of greenhouse gasses (Fiala, 2008) and are likely to lead to environmental disasters in the close future if these emissions are not being reduced (Tseng, 2017). We therefore tested problem awareness, knowledge as well as reasons to consider reducing or stopping meat consumption (i.e. motives) and evaluations about a vegetarian diet (i.e. attributes) in predicting willingness to stop or reduce the consumption of meat. This was done through an online questionnaire. More specifically, we included environmental, instrumental, social, health and habitual motives as relevant reasons to consider stopping or reducing eating meat. As for the attributes, we included environmental, symbolic, instrumental and health attributes based on previous research (Boustani & Guiné, 2020; Noppers et al., 2014). Based on these studies, four hypotheses have been formulated. The first one being 'an increase in problem awareness increased the willingness to significantly reduce and to stop meat consumption'. The second hypothesis stated that we expected knowledge not to be a significant predictor of the willingness to stop or reduce meat consumption. The third hypothesis stated that environmental, health and symbolic attributes would have a strong relationship with the willingness to stop and reduce

meat consumption. The last hypothesis stated that health, environmental, social and habitual motives are weaker predictors than attributes. By carrying out correlation and regression analyses the most important predictors for the two dependent variables were identified.

Our findings revealed that symbolic and instrumental attributes, problem awareness and environmental motives are the strongest predictors of willingness to completely stop meat consumption. For the willingness to reduce meat consumption, results show that social motives are a strong predictor on top of the environmental motives.

The findings for the dependent variable the willingness to significantly reduce meat consumption are partially in line with previous literature. Notably, the findings on environmental and social motives are in line with previous research examining these motives (Boustani & Guiné, 2020; Noppers et al., 2014). From this we can conclude that if people are closely surrounded by people following a vegetarian diet, they would be likely to reduce their meat consumption. The same is the case for environmental motives, indicating that if it is proven to be better for the environment people are likely to reduce their meat consumption. In contrast, what was surprising was the fact that problem awareness was not a significant predictor of the willingness to significantly reduce meat consumption even though previous literature did show its importance (Ünal et al., 2018). The same was found for knowledge, which was not related to stopping or reducing eating meat. However, this finding was both in line with our null hypothesis expecting no effect of knowledge as well as with literature, as it was described that increased basic knowledge does not necessarily motivate individuals to adopt sustainable behaviours (Bord et al., 2000).

The findings on the willingness to completely stop meat consumption were overall more in line with previous literature. First, symbolic attributes were a very strong predictor indicating that if it is agreed upon that a vegetarian diet would boost someone's status, individuals are likely to adopt a vegetarian dietary lifestyle. This is in line with previous studies as these describe that

symbolic attributes might enable a person to signal status and a positive identity which increases the chances of adopting sustainable behaviour. This research also states that instrumental drawbacks, such as a higher price of sustainable adoptions, can stimulate adoption as affording a higher price could signal one's status (Noppers et al., 2014). Interestingly however, next to symbolic attributes, instrumental attributes are also found to be a strong predictor. This is especially interesting taking into account that instrumental motives were not a significant predictor whereas instrumental attributes seem to be one of the strongest predictors. This again is in line with literature that points out people are often unaware of their true motives or they are unwilling to admit these true motives (Noppers et al., 2014). As for the reduction of meat consumption, problem awareness was not a significant predictor, it is a strong predictor for the willingness to stop consuming meat.. This difference indicates that if people are aware of the negative consequences of their meat consumption they prefer completely adopting a vegetarian lifestyle over only reducing their meat consumption. On top of the aforementioned, environmental motives were also found to be a strong predictor. This indicates that if it is proven to be better for the environment, people are more likely to stop their meat consumption over the reduction of their consumption.

Interestingly, for both dependent variables health attributes as well as health motives were not significant predictors even though literature suggested that especially adults' behaviour would be influenced by health factors (Saintila et al., 2020). As the average age of our participants was 39 years and only 2 participants were below the age of 18, according to the research by Saintila and colleagues, it would be expected that health would be of more importance in dietary choice. Future research could investigate why health motives and attributes did not significantly contributed to predicting decision on meat consumption.

Our research has various important theoretical and practical implications. Theoretically, we extent the model used by Noppers and colleagues (2014) to include health attributes, health and

social motives and habits, problem awareness and knowledge. It seems social motives add to the model, while habits, health motives and health attributes do not. In addition, we give theoretical support to the model that environmental attributes and motives are both important predictors. Indeed, Our findings indicate that environmental and social motives play a very important role in the participants' willingness of reducing meat consumption. For the willingness to completely adopt a vegetarian lifestyle, problem awareness, instrumental and symbolic attributes as well as environmental motives are of importance. These findings can thus play an important role in stimulating the reduction of meat consumption and thus the reduction of greenhouse gas emissions resulting in climate change mitigation (Rosi et al., 2017; Tseng, 2017). Remarkably, symbolic attributes seem to be the strongest predictor overall, meaning this variable has most influence on people's willingness to change their dietary lifestyle. Next to the symbolic attributes, social and environmental motives and problem awareness seem to be most effective in dietary behaviour change. As mentioned, health for both attributes as well as motives, seem not to be effective for dietary changes amongst meat-eaters. This can be explained by the fact that even though some consumers are fully aware of the positive and negative consequences of certain foods, they still end up making unhealthy dietary choices. It is thus not always true that knowledge on healthiness of food necessary leads to a healthy diet (Boustani & Guiné, 2020). Our findings therefore suggest that interventions based on symbolic and instrumental attributes of vegetarian diets, social and environmental motives and awareness on the consequences of meat-inclusive diets (PA) can be effective in order to reduce meat consumption. The findings also suggest that interventions based on increasing basic knowledge as well as on health related factors might not be sufficient to encourage adopting a vegetarian diet. As such, information regarding vegetarian diets or products should merely focus on symbolic and instrumental attributes, environmental and social motives and problem awareness instead of increasing knowledge on environmental processes or health.

Future research could firstly focus on the different types of knowledge and their influence on the willingness of (partially) adopting a vegetarian diet. As it is described, there are different types of knowledge, such as system knowledge, effectiveness knowledge and action-related knowledge (Frick et al., 2004). As our study only accounts for system knowledge, and thus knowing about the relationship between greenhouse gas emissions and meat consumption. It is recommended for future research to take the other forms of knowledge into account in order to find out if one of these types is effective for dietary behaviour change.

Second, it is recommended to have further research on the instrumental motives and the reduction of meat consumption. As we have found, instrumental attributes are important predictors for the willingness to stop meat consumption. However, people do not seem to admit this when this is asked in a direct way (i.e. motives). Because of this remarkable phenomenon, future research on the instrumental motives could be of great value.

Recommendations

As our research has identified the factors leading to an increased willingness to reduce meat consumption and to adopt a vegetarian lifestyle, various policy recommendations can be made based on these findings. As our research was conducted in the Netherlands and an intervention would be effective in this country, this section will have recommendations for the Dutch government in order to effectively address the problem of meat consumption. As the Netherlands was among the first countries signing up to the Paris Agreement, which aims at limiting global warming below 2 degrees Celsius, preferably no more than 1.5 degrees Celsius, the government has to take action in order to meet the needs of this agreement. The Dutch government states their focus is on the reduction of greenhouse gas emissions (Government of the Netherlands, n.d.). However, the Ministry of Economic Affairs and the Ministry of

Agriculture did actively not include a call to reduce meat consumption in a campaign aiming to make Dutch citizens more aware of climate change (NOS nieuws, 2021). It is therefore important that the Dutch government recognizes the contribution of the meat industry to climate change and implements strategies to reduce the meat consumption among the country's inhabitants. As environmental motives were an important predictor for both reducing as well as stopping meat consumption, this is one of the factors an intervention can be based on. Based on our survey, participants indicated they 'would significantly reduce or stop their meat consumption if it was proven to be better for the environment'. Education on the negative environmental impact of meat could therefore help individuals not to consume meat. As research has shown action-related knowledge is most effective for behaviour change (Frick et al., 2004) it is important to translate this knowledge to direct actions. As problem awareness was also a strong predictor for stopping meat consumption, an effective intervention would be based on this combination of understanding that meat consumption has negative impact on the environment (PA) and not eating meat would be better for the environment (environmental motives) and what actions have to be taken (action-related knowledge) in order to adopt this behaviour correctly. We therefore recommend to clearly express that these negative environmental consequences can be prevented when stopping or reducing meat consumption as well as education on replacement foods so individuals know how to take action for this matter.

Second, as instrumental attributes were an important predictor for stopping meat consumption an intervention based on these attributes would be effective as well. By taxing meat production, it is estimated that the worldwide impact of diet-related greenhouse gas emissions could decrease with 9.6% (Broeks et al., 2020). In the Netherlands, the meat chain is still subsidized by the Dutch government and European Union (Treich, 2021). Research on this topic highlights that a tax on meat and a price decrease of replacing fruit and vegetables leads to a net societal benefit for the Netherlands (Broeks et al., 2020). We would therefore recommend that on top

of the aforementioned strategy of effective education, the Dutch government should tax meat products instead of subsidizing these. As our participants indicated that they would stop their meat consumption if the price and availability of meat replacing products would be better than meat products, it should be made sure that the price of a non-vegetarian diet or meat replacing products become cheaper and abundant. As our research shows the great effectiveness of instrumental attributes, convincing people the reduce or stop their meat consumption based on these attributes could be a very effective intervention.

A third recommendation for an intervention to reduce meat consumption in the Netherlands would be to focus on symbolic attributes. Our study found that if symbolic attributes of a vegetarian diet would be more positive, participants would be willing to stop consuming meat. As people are tempted to see and show themselves as someone with status (Noppers et al., 2014) an intervention could focus on this. An intervention we propose is advertisements that highlight these attributes of someone being a better person with more status when adopting a vegetarian diet. Research on different strategies to promoting food products has found that the combination of pictures and symbolic text was the most effective strategy of product promotion (Haase, Wiedmann, Bettels, & Labenz, 2018). By following this marketing strategy, consumers are likely to show strong intentions to purchase a certain product (Haase, Wiedmann, Bettels, & Labenz, 2018). We therefore suggest that the Dutch government invests in marketing strategies for meat replacing products or other vegetarian foods that focus on these symbolic attributes as it is proven to be successful for the purchase of certain products.

Limitations

One limitation of the study is that we measured symbolic attributes but not the symbolic motives. Similarly, we measured social motives but not social attributes. We therefore cannot

have any conclusions for symbolic and social motives and attributes on whether there is a difference in what people say would motivate them in considering changing their diets and what actually predicts their behavioural intentions as it was suggested by previous research that, at least for the symbolic factor, there would be a difference in motives and attributes (Noppers et al., 2014). Future research should therefore measure the same attributes and motives in order to be able to better compare what people say would drive their decisions (i.e. direct method) and what actually would drive their decisions (i.e. indirect method; see Noppers et al., 2014). In addition, there might be other predictors that we did not include in our study such as other attributes or motives. Therefore, future research could also focus on including other potential variables that might be relevant to study dietary behaviour change. This would also help developing even more effective interventions to reduce meat consumption.

Another limitation can be the possibility that participants filled in the survey with socially desirable answers. Even though it has been made clear that the survey was completely anonymous and there are no wrong answers, there always is the possibility of participants giving socially desired answers affecting the result of the study (Cerri, Thøgersen, & Testa, 2019), particularly in an online setting.

Concluding remarks

By the means of an online survey, we have identified the main reasons why people consume meat and the main factors to reduce or completely stop this meat consumption. Notably, we have tested problem awareness, knowledge, and various motives and attributes as main psychological factors predicting dietary intentions concerning meat consumption. The motives included health, environmental, instrumental and social motives as well as habits. For attributes we have tested health, environmental, instrumental and symbolic attributes. Our results show

that for the willingness to significantly reduce meat consumption, problem awareness and knowledge were not significant predictors as well as any of the attributes. Environmental and social motives, however, are strong predictors for reducing meat consumption.

When looking at people's willingness to completely adopt a vegetarian diet, problem awareness appeared to be a strong predictor. In addition, we found that instrumental and symbolic attributes as well as environmental motives predict willingness to stop consuming meat. These findings indicate that for the radical decision of stopping to eat meat, people think environmental motives are rather important to consider, while environmental attributes do not predict intentions, meaning there is a mismatch between what people think would motivate them in stopping eating meat and what actually seems to predict these intentions. This is the same for instrumental attributes which are a significant predictor for stopping meat consumption, while instrumental motives are not a significant predictor.

The current study found symbolic and instrumental attributes, problem awareness and environmental motives to be the strongest overall predictors of the willingness to stop meat consumption. Environmental and social motives are the strongest predictor for the significant reduction of meat consumption. As we have identified environmental motives as a strong predictor for both dependent variables, action-based education on the negative environmental impact (PA) of meat consumption would help to reduce individuals following a diet including meat. As instrumental attributes also are key predictor for stopping meat consumption we recommend that meat replacing products, or other foods not containing meat, to be cheaper and abundant in order to convince people to stop consuming meat. Lastly, it is recommended to focus on symbolic attributes as we have also found significant evidence that this helps in order for individuals to stop their meat consumption. This could for example be done by advertising that a vegetarian diet gives status. As the significant reduction or abolishment of meat in dietary behaviour is necessary in order to prevent disastrous environmental consequences, this research

and its recommendations can be of great value in order to change individuals' dietary behaviour

and thus to mitigate climate change.

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Appendix A (Survey)

Capstone

Welcome to this survey!
For my Bachelor's thesis I am collecting responses on motivations for dietary choices.
The survey takes a maximum of 10 minutes to complete. You will be asked to answer 15 questions relating to your diet.
Thank you for your participation!

Your participation to this survey is voluntary. When deciding to participate you can stop at any time without having to provide a reason. There are no negative consequences to not participating or not finishing the survey. There is no right or wrong answer and you will not be negatively affected by any answers you give. The data collection of this survey is anonymous and any research data that is published cannot be used to identify you. Anonymised data may be shared with other researchers for scientific purposes.

By clicking the 'Yes, I consent' button below, you indicate that:
"I understood the aforementioned information and my participation in this study is voluntarily. I give consent to the researcher to use my survey responses as data."

Question 1 With what gender do you identify?

◯ Female (2)

◯ Male (1)

◯ Non-binary (3)

◯ Other/ prefer not to say (4)

Question 2 What is your age?

_____

Question 3 What is the highest level of education you have obtained?

◯ Primary education (1)

◯ Secondary education (high school) (2)

◯ Bachelor's degree (3)

◯ Master's degree (4)

◯ No education (5)

◯ Other, please specify... (6) _____

◯ Prefer not to say (7)

Question 4 Is your work related to the meat industry?

◯ No (1)

◯ Maybe (2)

◯ Yes (3)

Question 5 Do you follow a vegetarian diet?

◯ Yes, I am a lacto-ovo vegetarian (No meat and fish, I do eat dairy products and eggs) (1)

◯ Yes, I am a vegan (No animal products) (2)

◯ No, I do eat meat and/or fish (3)

Question 6 How many days a week do you eat meat and/or fish?

○ I don't eat meat or fish every week (1)

○ 1 or 2 days a week (2)

○ 3 or 4 days a week (3)

○ 5 or 6 days a week (4)

○ 7 days a week (5)

Question 7 What is the main reason you eat meat and/or fish?

○ Habits (1)

○ People around me do so as well (2)

○ Health reasons (3)

○ Taste (4)

○ Other, please specify... (5) _____

Question 8 Please indicate to what extend you agree or disagree with the statements below.
'I would **significantly reduce** my meat and/or fish consumption if...

	Completely disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Completely agree (5)
it was proven to be healthier for me.' (1)	○	○	○	○	○
it was proven to be better for the environment.' (2)	○	○	○	○	○
it would be cheaper to consume a diet with less meat and/ or fish.' (3)	○	○	○	○	○
my partner would follow a vegetarian diet.' (4)	○	○	○	○	○
everyone around me would follow a vegetarian diet.' (5)	○	○	○	○	○
the supply of meat and/ or fish replacing products would be better.' (6)	○	○	○	○	○
meat and/ or fish replacing products would be cheaper.' (7)	○	○	○	○	○
I would be more familiar with vegetarian recipes/ meals.' (8)	○	○	○	○	○
I would have been raised without consuming meat and/ or fish.' (9)	○	○	○	○	○

Please specify if there is any other circumstance in which you would **significantly reduce** your meat and/or fish consumption.

Q9 Please indicate to what extent you agree or disagree with the statements below.
 'I would **stop consuming** meat and/or fish if...

	Completely Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Completely agree (5)
it was proven to be healthier to follow a vegetarian diet.' (1)	○	○	○	○	○
it was proven to be better for the environment to follow a vegetarian diet.' (2)	○	○	○	○	○
a vegetarian diet would be cheaper than a meat-based diet.' (3)	○	○	○	○	○
my partner would follow a vegetarian diet.' (4)	○	○	○	○	○
everyone around me would follow a vegetarian diet.' (5)	○	○	○	○	○
the supply of meat and/ or fish replacing products would be better.' (6)	○	○	○	○	○
meat and/ or fish replacing products would be cheaper.' (7)	○	○	○	○	○

I would be more familiar with vegetarian recipes/ meals.' (8)	○	○	○	○	○
I would have been raised without consuming meat and/ or fish.' (9)	○	○	○	○	○

Please specify if there is any other circumstance in which you would **stop** your meat and/or fish consumption.

_____

Question 10 How much do you agree with these statements about a vegetarian diet?

	Completely Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Completely disagree (5)
A vegetarian diet would be healthy (1)	○	○	○	○	○
A vegetarian would be environmentally friendly (2)	○	○	○	○	○
A vegetarian diet would be affordable for me (3)	○	○	○	○	○
A vegetarian diet would be more ethical than a non-vegetarian diet (4)	○	○	○	○	○
It would be easy to follow a vegetarian diet (5)	○	○	○	○	○
A vegetarian diet would boost my status (6)	○	○	○	○	○

I would think more positively about myself if I wouldn't consume meat and/ or fish (7)	○	○	○	○	○
A vegetarian diet would be tasty (8)	○	○	○	○	○
A vegetarian diet would be more tasty than a non-vegetarian diet (9)	○	○	○	○	○

Question 11 Indicate if, and if so to what extent you agree with the following statements

	Completely agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Completely disagree (5)
I feel concerned about the environment (1)	○	○	○	○	○
I am concerned about animal wellbeing resulting from meat consumption (2)	○	○	○	○	○
I believe that meat consumption has a negative impact on the environment (3)	○	○	○	○	○

Page Break

Question 12 Please indicate: 'What percentage of greenhouse gas emissions does the meat industry contribute to the world's total greenhouse gas emissions', do you think?

0   10   20   30   40   50   60   70   80   90   100

()

Please indicate: I am willing to **significantly reduce** my meat and/or fish consumption

	Completely disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Completely agree (5)
I am willing to **significantly reduce** my meat and/ or fish consumption (1)	○	○	○	○	○

Please indicate: I am willing to **stop consuming** meat and/or fish

	Completely disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Completely agree (5)
I am willing to **stop** consuming meat and/ or fish (1)	○	○	○	○	○

End of Block: Block 1