

**TRANSITION TO A SUSTAINABLE SOCIETY: The Influence of Subjective  
Norm and Ease of Retrieval on Environmental Self-identity and Pro-  
environmental Behaviour**

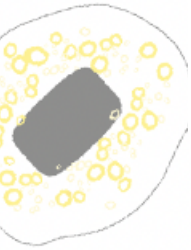
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### **Abstract**

Consumer behaviour is one of many contributors to the current state of climate change. Supporting individuals to engage in actions beneficial to the environment (Pro-environmental Behaviour) has therefore been a relevant focal point in research. This study examined antecedents of Pro-environmental Behaviour and Environmental Self-identity. An Ease of Retrieval manipulation (Schwarz et al., 1991) was conducted on a sample of mostly university students (N=70), attempting to alter their Environmental Self-identity. Additionally, Subjective Norm has been found to moderate the effect of Environmental Self-identity on Pro-environmental Behaviour (Fielding et al., 2008), which is tested again in this study. For both the manipulation and moderation no significant effects were found, while the results did contain a positive correlation between Environmental Self-identity and Pro-environmental Behaviour. Two out of the three hypothesis were therefore rejected, potentially caused by practical and theoretical issues which were discussed.

**Keywords:** Ease of Retrieval; Perceived Difficulty of Task; Subjective Norm; Environmental Self-identity; Pro-environmental Behaviour; Behavioural Intention

## **1.1 Introduction**

The significant increase in urbanity across the past century caused higher population densities which forced changes in human lifestyle and behaviour. As a result, earth's nature has been polluted primarily by activities originating from industrialization and urbanisation (Celik, 2020). Extreme levels of CO<sub>2</sub> release have caused higher temperatures and changes in climate. In more recent times, many communities have suffered the consequences of floods and earthquakes where people lost their lives, got injured or became homeless. Furthermore, climate change negatively influences all areas such as global health, agriculture and the economy, which means a call for action is more necessary than ever (Ciscar et al., 2011).

Apart from governmental measures that have been taken to reduce CO<sub>2</sub> emissions, another role lies in the hands of the individual (Romm, 2022). Excessive use of resources, over-consumption and pollution are among many behaviours displayed by consumers which significantly account for carbon emissions (Wells et al., 2011). Motivating individuals to engage in pro-environmental behaviours has thus been an objective in previous research. Some of which have used Environmental Self-identity as a relevant influencer since it has been found to be significantly correlated with Pro-environmental Behaviour (Carfora et al., 2017; Van der Werff et al., 2013a; Fanghella et al., 2019). Apart from biospheric values (Wang et al, 2021), self-identity is determined by past behaviour, which in itself is impossible to change into behaviours that are more desirable (Van der Werff et al, 2013b). However, through an availability heuristic named Ease of Retrieval, the focus shifts to one's perception of past behaviour. Schwartz et al. (1991) demonstrated with the use of this heuristic that the easier certain behaviours were recalled, the more those behaviours would fall in line with that person's self-identity. Utilising this manipulation for the problem at hand would make sense, since there is a call for more interventions focusing on the underlying factors of Pro-environmental Behaviour (Wang et al., 2021).

Another possible predictor for behaviour can be found among the four main constructs of the theory of planned behaviour, namely Subjective Norm, which refers to what a person believes others think of that person and their behaviour (Ajzen, 1991). De Leeuw et al. (2015) used the theory of planned behaviour on a sample of high-school students to identify key beliefs underlying young people's Pro-environmental Behaviour. The findings indicated that there was a

significant effect of Subjective Norm a Pro-environmental Behaviour. Another study by Al-Swidi et al. (2014) found similar effects using the theory of planned behaviour on organic food consumption.

Aforementioned literature implies there is a possibility that Ease of Retrieval and subjective norms are related to people's Environmental Self-identity and behaviour. To acquire a deeper understanding of underlying factors regarding an individual's Pro-environmental Behaviour, the following question will therefore be defined as the center of this study: " Do Ease of Retrieval and Subjective Norm influence Environmental Self-identity and Pro-environmental Behaviour?"

## **1.2 Theoretical Framework**

### *Pro-environmental Behaviour (Meatless meal consumption)*

The generally used definition for Pro-environmental Behaviour is the reduction of negative impact on the environment as a result of intentional individual action (Li et al, 2019). Many behaviours exemplify this definition such as recycling, water efficiency and waste reduction (Lange & Dewitte, 2019). However, this study will focus on the act of leaving meat out of one's meal, since for the scientific method it is crucial to turn concepts into measurable entities. This behaviour, further referred to *as meatless meal consumption*, is desirable in that its goal is to decrease the unsustainable over-production of animal-based products (Neacsu et al., 2017). Therefore, having 'meatless days' or having 'less but better' are considered important habits in order to adapt to sustainable food security (De Boer et al., 2014).

### *Environmental Self-identity*

An important predictor for Pro-environmental Behaviour is an individual's Environmental Self-identity, that is, the degree to which a person thinks of their actions as environment-friendly (Van der Werff et al., 2013a). People who believe they have a strong Environmental Self-identity are more likely to think they are an environmentally-friendly person and tend to engage in Pro-environmental Behaviour more frequently (Van der Werff et al., 2013c).

Research on self-identity related to pro-environmental behaviours has taken on two forms, one focusing on a generalised Environmental Self-identity influencing a wide range of pro-environmental behaviours, and one on Environmental Self-identity which narrows down on a specific type of behaviour (Whitmarsh & O'Neill, 2010). Regarding the latter, there are a couple of studies in which recycling self-identity, environmental activism self-identity and genetically modified food self-identity all were found to be successful predictors of their respective behaviours (Nigbur et al., 2010; Fielding et al., 2008; Cook et al., 2002). Similar assessments can be applied to vegetarianism, since an incorporated vegetarian diet into one's identity is a strong predictor of adherence to that diet (Rosenfeld, 2019). However, these studies are among the few that have been conducted in the domain of environmental self-identities focusing on specific behaviours (Van der Werff et al., 2013b). For that reason, this study aims to provide more in-depth understanding on this topic.

#### *Past Behaviour (Ease of Retrieval)*

For Environmental Self-identity two components are regarded as primary ones, namely biospheric values and past behaviour (Fanghella et al., 2019). Biospheric values tend to be robust and difficult to alter, making it a difficult target to intervene on. On the other hand, an individual's past behaviour is regarded as a more manipulable component of Environmental Self-identity. Van der Werff et al. (2013a) found that this is more strongly the case if a person also believes they have acted pro-environmentally in the past, and even stronger if they are also reminded of this past behaviour. These findings indicate that the path to effectively influence Environmental Self-identity is not found at actual past behaviour, but at people's perception of it. A strongly established concept in social cognition research that relates to perceived past behaviour is Ease of Retrieval (Schwarz et al., 1991).

According to Tversky and Kahneman (1973), Ease of Retrieval can be considered an availability heuristic since it entails that the estimation that a certain event occurs is heavily dependent on the ease with which relations and associations come to a person's mind. In a study conducted by Schwarz et al. (1991), interesting dynamics were found by the utilisation of an Ease of Retrieval manipulation attempting to change the participants' self-perception regarding assertiveness. In the manipulation, one group was asked to name 12 past instances of assertive

behaviour, while the other had to name 6. Through priming the participants with past assertive behaviour, the researchers expected an increase in subsequent reports of assertive self-identity assessments, but this was only the case for the group which had to name 6. The other group's struggle in coming up with 12 different instances reversed the priming effect and caused them to rate their assertiveness lower in the evaluation. This study, among various others accumulating comparable results in Ease of Retrieval manipulation (Tormala et al., 2002; Aarts & Dijksterhuis, 1999; Dijksterhuis et al., 1999), confirm the effectiveness of using this manipulation to potentially alter self-identity. This means Ease of Retrieval could increase people's Environmental Self-identity, which leads to more engagement in Pro-environmental Behaviour.

### *Subjective Norm*

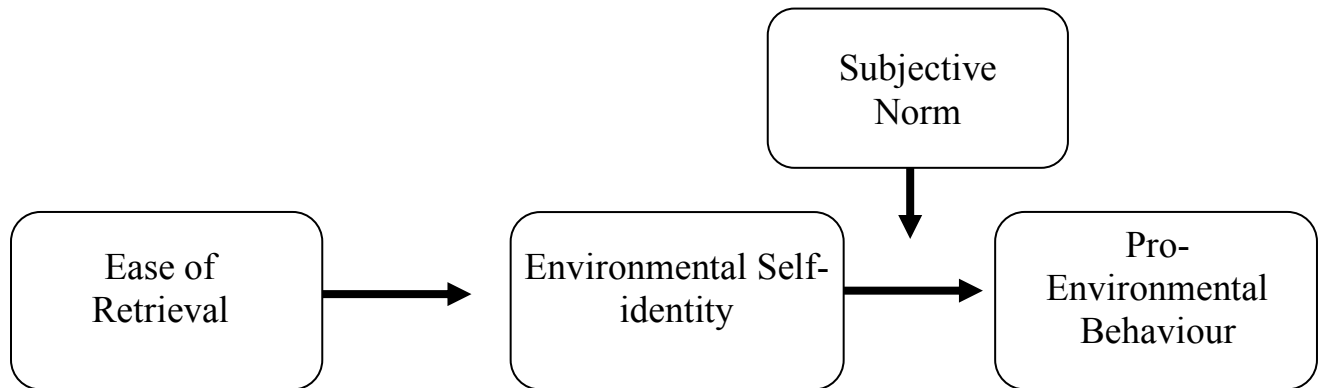
In the theory of planned behaviour (TPB), Subjective Norm is defined as an individual's belief that another important person or group of people will approve and support a particular behaviour (Conner & Armitage, 1998). Furthermore, studies have shown that subjective norms influence a person's engagement in Pro-environmental Behaviour. For example, a study conducted on high school students which tried to identify their beliefs regarding Pro-environmental Behaviour with the usage of TPB found that peers who acted out Pro-environmental Behaviour influenced others through subjective norms (De Leeuw et al., 2015). Additionally, Ando et al., (2010) studied the differences between the determinants of Pro-environmental Behaviour in Germany and Japan, including the Subjective Norm. For both Germany and Japan, significant effects were found between Subjective Norm and Pro-environmental Behaviour. Given these results from previous research, Subjective Norm can be considered a potential predictor of Pro-environmental Behaviour.

Subjective Norm however does not merely seem to be an influencer of Pro-environmental Behaviour. Fielding et al. (2008) investigated the role of membership in an environmental activism group (or groups) on the relationship between Environmental Self-identity and behavioural intention (Pro-environmental Behaviour) on university students. It was argued that with high levels of group membership, it is a person's social identity as a member of an environmental group (or groups) functioning as the strongest influence on behavioural decisions. On the other hand, with low levels of group membership, the norms of environmental groups

may have little to zero influence on behaviour, where it is instead one's Environmental Self-identity that is the stronger predictor. In the analysis of the study, group membership was indeed found to be moderating the effect self-identity has on behavioural intention. Instead of membership, this interaction effect can be explained by the norms of the group, given the reasoning that membership requires a certain level of agreement and conformity with the norms of that group (Fielding et al., 2008). This dynamic can therefore also be applied to the focus of this study, which means it is expected that Subjective Norm moderates the effect Environmental Self-identity has on Pro-environmental Behaviour.

### ***The Present Study***

In the current study the relationships between Ease of Retrieval, Environmental Self-identity, Subjective Norm and Pro-environmental Behaviour will be investigated. More precisely, the manipulation technique 'few versus many' derived from Schwarz et al. (1991) will be used to test for a relationship between Ease of Retrieval and Environmental Self-identity. The specified Pro-environmental Behaviour central in the manipulation is meatless meal consumption, where it is predicted that the 'few' group will have a stronger Environmental Self-identity than the 'many' group. Additionally, Pro-environmental Behaviour will be measured through self-reported behavioural intention for further confirmation of Environmental Self-identity being a significant influencer (Van der Werff et al., 2013a). It will also be tested whether Subjective Norm moderates the effect of Environmental Self-identity on Pro-environmental Behaviour, such that Environmental Self-identity is stronger when Subjective Norm is lower compared to when the Subjective Norm is higher (De Leeuw et al., 2015; Ando et al., 2010; Fielding et al., 2008).

**Figure 1***Conceptual Framework*

Considering previous findings, the hypotheses are as follows:

*H1: There is an effect of Ease of Retrieval on Environmental Self-identity*

*H2: There is a positive correlation between Environmental Self-identity and Pro-environmental Behaviour*

*H3: Subjective Norm moderates the relationship between Environmental Self-identity and Pro-environmental Behaviour, where the effect of Environmental Self-identity on Pro-environmental Behaviour is stronger when Subjective Norm is lower compared to when Subjective Norm is higher*

## 2. Methods

### *Participants & Design*

The participants were randomly allocated to one of two conditions in a one-factor between participants design with manipulated Ease of Retrieval (few vs. many) as independent variable and vegetarian self-identity (Environmental Self-identity) as dependent variable. Meatless meal consumption (Pro-environmental Behaviour) was used as another dependent variable. Furthermore, alongside the potential moderator Subjective Norm, animal welfare concern and enjoyment were measured as moderators, since this study was executed jointly with



two fellow students who conducted their own research. The data from those two constructs will be left out of the scope of this paper, since they have no relevance to the current study. Lastly, demographics were collected for potential exploratory analyses.

The participants have been recruited through the participant gathering tool ‘Sona-Systems’ under the University of Twente licence. This type of sampling leads to the participants being mostly young students at the University of Twente. Additionally, convenience sampling was used to increase the number of participants. The link to the study was distributed among social circles and social media groups and participants from the University of Twente were compensated for their time with Sona Credits.

In total, the sample consisted of 102 participants of which 32 subjects were left out of analysis. Most of the deleted subjects did not fill out the survey completely ( $N=29$ ), while the rest withdrew after debriefing ( $N=3$ ), producing a response rate of 68.6%. The participants had a mean age of 22.08, were predominantly female ( $N_{\text{female}} = 46$ ,  $N_{\text{male}} = 22$ ,  $N_{\text{non-binary}} = 2$ ) and mostly originated from the Netherlands ( $N_{\text{dutch}} = 40$ ,  $N_{\text{german}} = 19$ ,  $N_{\text{others}} = 11$ ).

### *Procedure and Measures*

The study was conducted online through survey tool Qualtrics. A link to the first page was shared with the participants, which contained a welcoming message including the participant’s rights and a general description of the study. At the end of the page consent of participation (Appendix A) was asked which could be given by checking a box. Followed by the informed consent, a small demographic questionnaire was to be filled out, asking for the age, gender, nationality, occupation and educational-level of the participant.

**Ease of Retrieval.** After the demographic questionnaire, participants received instructions for the upcoming task: *‘In the following page you are asked to fill out a task that requires you to name meatless meals you have eaten in the last 30 days. Additionally, you will be given a definition of what meatless meals are. It is important that your answers are honest, complete and given without any help from the internet.’* As the definitions of meat differ, it is specified that in this study the definition from Cambridge is used, reading *‘the flesh of an animal when it is used for food, in other words, fish is also included.’*

Subsequently, randomly assigned to one of the two experimental conditions, participants in the High Ease of Retrieval condition (High Ease paired with the more easy task) were

instructed: *'Please name 7 examples of meatless meals you have eaten in the last 30 days [you can only mention one type of dish once]'*. And subjects of the Low Ease of Retrieval condition (Low Ease paired with the more difficult task) were instructed: *'Please name 14 examples of meatless meals you have eaten in the last 30 days [you can only mention one type of dish once]'*. All participants were asked to write down the examples from memory into empty fields provided, differing from 7 to 14 fields, depending on the Ease of Retrieval condition. The numbers 7 and 14 were selected through a small pilot study of 4 participants in which they were given two minutes to name as many meatless meals as they could that they had consumed in the past 30 days.

Lastly, as part of the Ease of Retrieval, a manipulation check was done with the perceived Ease of Retrieval. Here, the participants had to rate the difficulty of the task by answering the following statement: *'I found the task...'* and the question *'How difficult was it for you to name these meals?'* Answers could be given on a seven-point Likert scale from 'Very easy' (1) to 'Very difficult' (7).

**Vegetarian Self-Identity (Environmental Self-identity).** On the next page, the vegetarian self-identity (VSI) of the participants was measured (Appendix B). The VSI questionnaire was derived from Van der Werff et al., (2013c) Environmental Self-identity questionnaire, replacing the focus from the environment to meat replacement. The statements participants had to respond to included to what extent a person feels like meat replacement is part of their life and identity. The 3 statements consisted of the next three statements: *'Eating meatless meals is an important part of who I am'*, *'I am the type of person who eats meatless meals'*, *'I see myself as a person who eats meatless meals'*, all of which could be rated on a 7 point-scale (Strongly disagree - Strongly agree). The VSI proved to have excellent internal consistency  $\alpha = .920$ ,  $\lambda^2 = .921$

After the VSI questionnaire, three separate measurements were taken which regarded either Subjective Norm, enjoyment or animal welfare concern.

**Subjective Norm.** To acquire information about the participant's Subjective Norm relating to eating meatless meals, the direct measure of the Subjective Norm utilised in Verbeke and Vackier (2005) was used by tailoring it to the focus of this study (Appendix C). Three statements formed the representation of the dependent variable Subjective Norm rated on a 5 point Likert scale (Strongly disagree - Strongly agree). The measurement included the

statements: *'People who are important to me, think I should eat meatless meals'*; *'Most people whose opinions I value think I should buy/eat meatless meals'*; *'It is expected of me that I buy/eat meatless meals'*. The reliability of this scale was rated with a Cronbach's alpha of  $\alpha = .8$ .

**Enjoyment.** To assess the enjoyment of participants regarding meatless meals, a scale was created. The questionnaire consisted of three statements, namely: *'The chance that I enjoy eating meatless meals is high'*, *'I like eating meatless meals most of the time'*, *'Normally I dislike eating meatless meals'*. The latter statement is a reverse item and is thus to be recoded to be able to sum up the three items to calculate the total score.

**Animal Welfare Concern.** Animal Welfare Concern [AWC] was measured via the 20-item scale called *'the Composite Respect for Animals Scale-Short'* ([CRAS-S] Randler et al., 2018; Appendix X). The questionnaire contains 10 different themes of attitudes towards animal welfare, each with two questions. The themes covered are (1) use of animals in research, (2) use of animals for food, (3) farm animal husbandry, (4) animals as pets, (5) animal use for recreation, (6) humans as superior, (7) conservation of animals, (8) animal use for clothing, (9) hunting/angling, and (10) commitment (emotional affection). All the 20 items use a 5-point Likert scale (Fully Agree - Fully disagree, including an 'undecided' response option).

**Behavioural Intention (Pro-environmental Behaviour)** Finally, the participants had to give information about their future behaviour regarding meatless meal consumption (Appendix D). Again, three statements were to be rated on a 7-point scale (Strongly disagree - Strongly agree), namely: *'The chance that I eat meatless meals in the next 2 weeks is high'*, *'I am planning to eat meatless meals in the next 2 weeks'*, *'My willingness to eat meatless meals is large'*. The questionnaire for Behavioural Intention has shown to have good internal consistency  $\alpha = .890$ ,  $\lambda^2 = .892$ .

Since information about the actual goal of the study was withheld from the participants, participants were made aware of the situation through a debriefing page displayed after completion of the questionnaires. They were subsequently asked if they would like to withdraw from the study after being informed about the study's true nature. Regardless of their choice, they are provided with a message in which they are thanked for their participation.

### *Data Analysis*

After the dataset has been acquired from Qualtrics, all the subjects which were declared not eligible for analysis (withdrawn consent, incomplete responses and manifested misunderstandings of one of the tasks) were removed before continuing to the tests.

For hypothesis 1 the manipulation check rating was coupled with the respective manipulation group to compare with reported Vegetarian Self-Identity using an Independent-Samples T-Test. Required test assumptions included normality, linearity, independence of residuals and equal variance. In case of assumption violation, a suitable alternative was chosen for replacement. The T-Test provide more clarity on whether there is a significant difference between the two groups. A confidence interval of 95% was used with an alpha of 0.05. The hypothesis was rejected if no significant difference was found.

Secondly, for the correlational analysis, a Pearson's correlation was calculated. In this analysis, H2 was tested to see whether there is a positive correlation between Environmental Self-identity and Pro-environmental Behaviour. The hypothesis was rejected if no significant correlation was found.

Lastly, the moderation analysis attempts to find an interaction effect of Subjective Norm on the relationship between Environmental Self-identity and Pro-environmental Behaviour. PROCESS v4.2 by Andrew F. Hayes was used, which is a SPSS extension meant for mediation and moderation analysis. 5000 bootstrap samples were selected and a confidence interval of 95% with an alpha of 0.05. The hypothesis was rejected if no significant correlation was found.

## **3. Results**

### ***Ease of Retrieval Manipulation Check***

Firstly, an Independent Sample T-Test was run on Environmental Self-identity among the two groups to test whether Environmental Self-identity is stronger in the 'few' group. Only the normality assumption was violated (Appendix E) but this was ignored given that T-Tests are sufficiently robust without the presence of normality (Duncan & Layard, 1973). Nonetheless, no significant effect was found ( $t(69) = -.807$   $p=.678$ ) in the analysis. Additionally, to test whether the 'few' group actually perceived the task as easier compared to the 'many' group, another Independent Sample T-Test was run with Perceived Ease of Retrieval among the two groups.

Again, the results showed that no significant effect was found ( $t(68) = -.163$   $p=.871$ ). Also, the mean of both the 'few' ( $M = 3.64$ ,  $SD = 1.89$ ) and 'many' ( $M = 3.78$ ,  $SD = 1.74$ ) group were close to the middle of the scale. Overall, this means that the Ease of Retrieval manipulation did not reach its intended goal of altering the perceived difficulty of the task at hand. The first hypothesis, therefore, had to be rejected.

### ***Correlational Analysis***

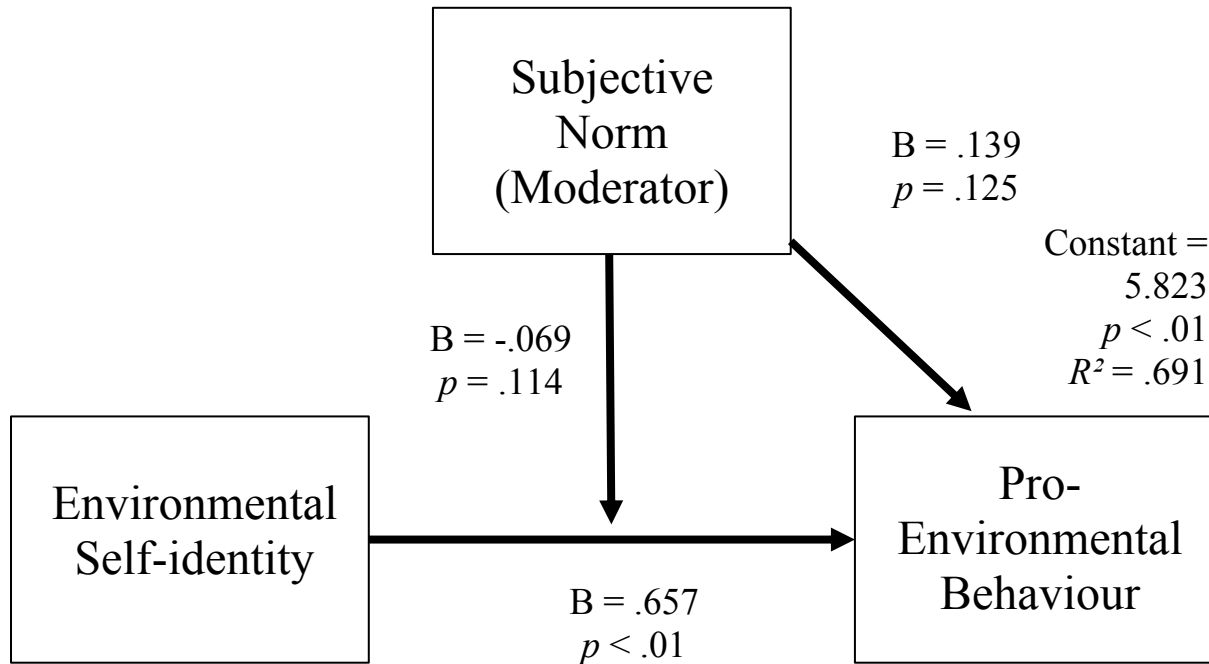
To test for H2: "*There is a positive correlation between Environmental Self-identity and Pro-environmental Behaviour*" a Pearson correlation was measured between Vegetarian Self-Identity and Behavioural Intention. A significant positive correlation ( $\rho=.831$ ) was found between Vegetarian Self-Identity and Behavioural Intention, which means that the second hypothesis was accepted.

### ***Moderation Analysis***

The third hypothesis: "*Subjective Norm moderates the relationship between Environmental Self-identity and Pro-environmental Behaviour, where the effect of Environmental Self-identity on Pro-environmental Behaviour is stronger in the low Subjective Norm group compared to the high Subjective Norm*" was tested utilizing a model 1 regression on PROCESS v4.2. The general model (Figure 2) was significant ( $F(3, 63) = 49.94$ ,  $p < .05$ ,  $R^2 = .691$ ), revealing a significant effect of Vegetarian Self-Identity on Behavioural Intention ( $B = .865$ ,  $t(67) = 6.783$ ,  $p < .05$ ). However, no statistically significant effect was found of Subjective Norm on Behavioural Intention ( $B = .455$ ,  $t(67) = 1.982$ ,  $p = .516$ ). Similarly, Subjective Norm did not moderate the effect Vegetarian Self-Identity has on Behavioural Intention, since the interaction effect was not significant ( $B = -.069$ ,  $t(67) = -1.602$ ,  $p = .114$ ). In other words, the effect Vegetarian Self-Identity has on Behavioural Intention was not stronger when Subjective Norm was lower, compared to higher levels of Subjective Norm. This means that H3 had to be rejected.

**Figure 2**

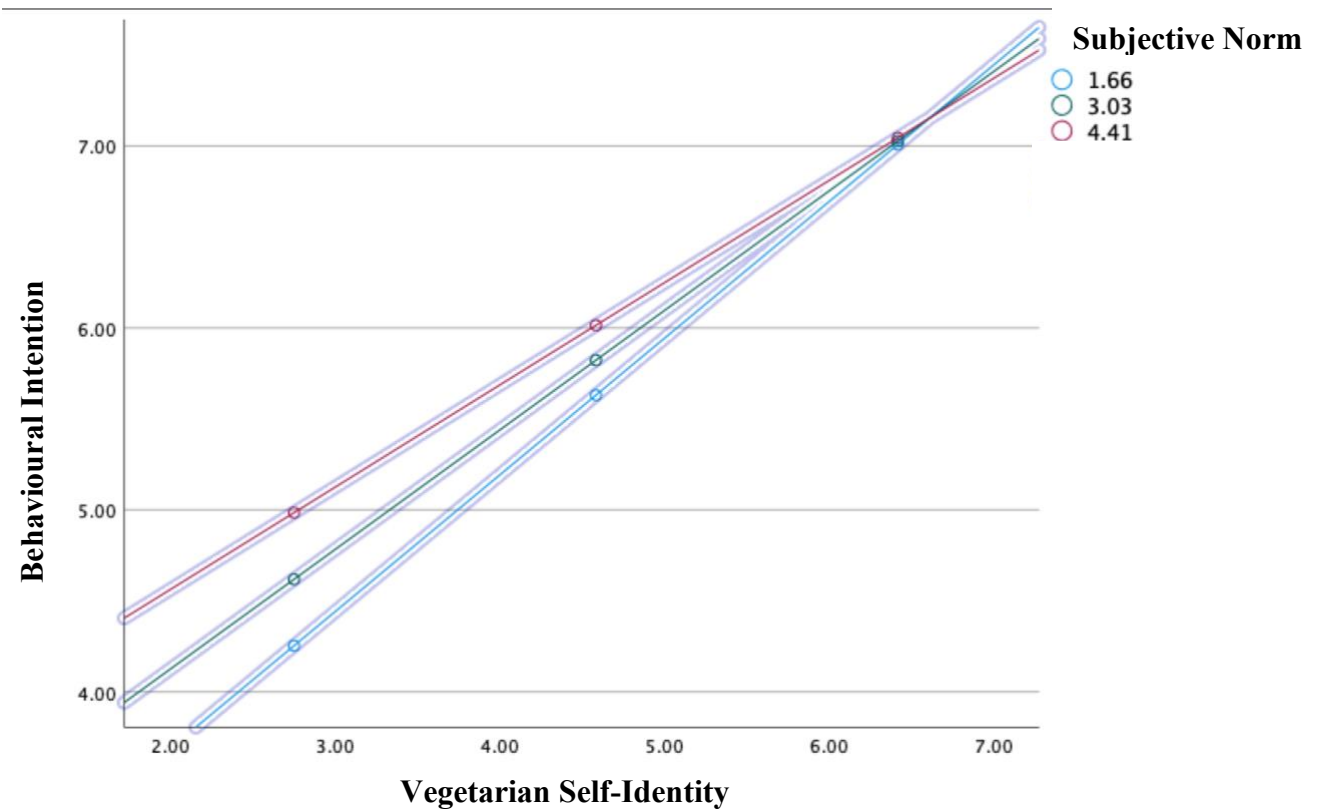
*Model including moderation and correlational analyses with effects and significance value*



By visualizing the moderation (Figure 3) it even becomes clear that the interaction had the opposite effect, although not significant, compared to what the third hypothesis predicted. At weak levels of Environmental Self-identity, the effect of Environmental Self-identity on Pro-environmental Behaviour was stronger when Subjective Norm was higher, instead of when Subjective Norm group was at lower levels.

**Figure 3**

*Scatterplot of Subjective Norm (Grouped SD-1, Mean, SD+1) on the effect of Vegetarian Self-Identity on Behavioural Intention*



#### 4. Conclusions and Discussion

This paper aimed to examine the relationships between Ease of Retrieval, Environmental Self-identity, Subjective Norm and Pro-environmental Behaviour. Central to this study stood the attempt to influence the subject's perception of past behaviour related to their Environmental Self-identity. Contrary to expectations, the Ease of Retrieval manipulation failed to fulfil its self-identity-altering purpose. Self-reported Vegetarian Self-Identity was not stronger in the 'few' group in which a relatively small amount of meatless meals was required to be recalled compared to the 'many' group. Hence, H1 had to be rejected. The strong relationship found in previous research (Van der Werff et al., 2013a; Fanghella et al., 2019) between Environmental Self-identity and Pro-environmental Behaviour was again tested in this study through Vegetarian Self-Identity and Behavioural Intention. The results were in line with former studies after a significant positive correlation resulted from the analysis. It is shown once again that behaviours are influenced by levels of self-identity. This means that the second hypothesis of this study was supported by the data. The final analysis pursued to test the effect of Environmental Self-identity involving Subjective Norm as a potential moderator. Subjective Norm is established in the literature as a considerable influencer on Pro-environmental Behaviour (De Leeuw et al., 2015; Ando et al., 2010) and was found as a moderator on the relationship between Environmental Self-identity and Behavioural Intention in a study by Fielding et al. (2008). Nonetheless, the results indicated that Subjective Norm was neither an influencer nor a moderator, which led to H3 being rejected. This study managed to replicate one previous finding but did not achieve in its exploratory pursuits of achieving more in-depth understanding on the examined relationships. Several factors can be recognized as possible reasons for this outcome.

The manipulation task was inspired from Schwarz et al., (1991) which proved to be a successful technique to apply. However, the present study made use of a different concept and altered the amount of required past behaviours that had to be recalled. Within the transformation to a slightly different manipulation resides a space for error, which might have affected the construction of our manipulation task. The fact that the mean of both groups was close to the middle of the scale, indicates that the 'few' group did not experience the task as easy, nor did the



‘many’ group experience the task as difficult. Perhaps a larger contrast between the required meals of the groups would have been more effective, creating a greater difficulty for the ‘many’ group, and more ease for the ‘few’ group. In hindsight, a pilot study with a larger sample could have produced a better and more reliable number of required meals per group.

Aside from the manipulation, the moderation analysis led to the third hypothesis being rejected. This is a challenging finding to explain, especially when Subjective Norm seemed to almost have an opposite interaction effect than what was expected. The study by Fielding et al. (2008) was the primary theoretical backbone for Subjective Norm as a moderator in this paper. Environmental Self-identity as an influencer of Pro-environmental Behaviour depended on an individual’s adherence to subjective norms. A strong adherence would mean that behaviour is for the majority predicted by the social group norms, rather than Environmental Self-identity. This seemed like a rational theory to work with on the current study, however, it might have been too quick of a conclusion to have used this as a hypothesis. Fielding et al. (2008) focused on environmental activism, and how membership in an activist group impacted the relationship between self-identity and behaviour. In hindsight, to equal the membership (norms) of an environmental activist group to subjective norms in the scope of this study was somewhat short-sighted. Subjective norms refer to all important persons or groups around an individual, not merely a specific group (Ajzen, 1991), which in the case of Fielding et al. (2008) was an environmental activist group. Therefore, in the context of Vegetarian Self-identity and Behavioural Intention, future research could possibly examine the role of Subjective Norm in a more exploratory nature instead of a moderator.

In conclusion, the study did not generate the expected results derived from former research. A combination of practical and theoretical inaccuracies caused for two of the hypotheses to be rejected. On a positive note, all the utilized constructs showed good internal reliability, which means they are suitable for utilization in future research. Also, Vegetarian Self-Identity and Behavioural Intention have not been studied before in relation to an Ease of Retrieval manipulation, which means this study can be regarded as a building block for future studies. Furthermore, future research is advised to shorten the required meals for the ‘few’ group and increase the required meals for the ‘many’ group. A pilot study could assist with determining these amounts. With this in mind, future studies might be able to gain a deeper understanding of Pro-environmental Behaviour and its antecedents.

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## Appendix

### Appendix A

#### *Online Informed Consent*

Thank you for your interest!

The purpose of this study is to measure and gain insight in the causes and expression of food consumption. This study is part of the Bachelor's Theses by third year students of the University of Twente. It has been reviewed and approved by the University of Twente BMS Ethics Committee.

The participation in this study is entirely voluntary. During participation you may choose to withdraw at any time without explanation by simply closing the window. Withdrawing consent will bring no repercussions and the data created by you thus far will be deleted.

The dataset is completely anonymous and no personally identifiable information will be collected. The anonymous data will be used for scholarly research purposes and may be shared with other research members of the University of Twente. The data will be retained for five years. After this time, all collected data related to this study will be deleted.

The study starts off with a basic demographic questionnaire, followed by a task which consists of questions regarding past and current behaviour of food consumption. All in all the questions should take approximately 5-10 minutes to complete. Please answer all questions and be as truthful as possible. This questionnaire can be filled in through most devices (laptop, mobile phone, tablet, etc.).

If there are any remaining questions, concerns, or otherwise, feel free to contact one of the researchers:

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- I have read and understood the study information listed above dated 08.11.2022 and confirm that I voluntarily participate.
- I am over the age of 16

**Appendix B***Vegetarian Self-Identity Scale*

Eating meatless meals is an important part of who I am

I am the type of person who eats meatless meals

I see myself as a person who eats meatless meals

**Appendix C**

People who are important to me, think I should eat meatless meals

Most people whose opinions I value think I should buy/eat meatless meals

It is expected of me that I buy/eat meatless meals

(On a 7-point Likert scale: 'Strongly Disagree' (1), 'Disagree' (2) 'Somewhat disagree' (3), 'Neither agree nor disagree'(4), 'Somewhat agree' (5), 'Agree' (6) and 'Strongly agree' (7).)

**Appendix D***Behavioural Intention Scale*

The chance that I eat meatless meals in the next 2 weeks is high

I am planning to eat meatless meals in the next 2 weeks

My willingness to eat meatless meals is large

(On a 7-point Likert scale: 'Strongly Disagree' (1), 'Disagree' (2) 'Somewhat disagree' (3), 'Neither agree nor disagree'(4), 'Somewhat agree' (5), 'Agree' (6) and 'Strongly agree' (7).)



**Appendix E**

*Independent Sample T-Test Test Assumptions (IV: EoR, DV: Environmental Self-identity)*

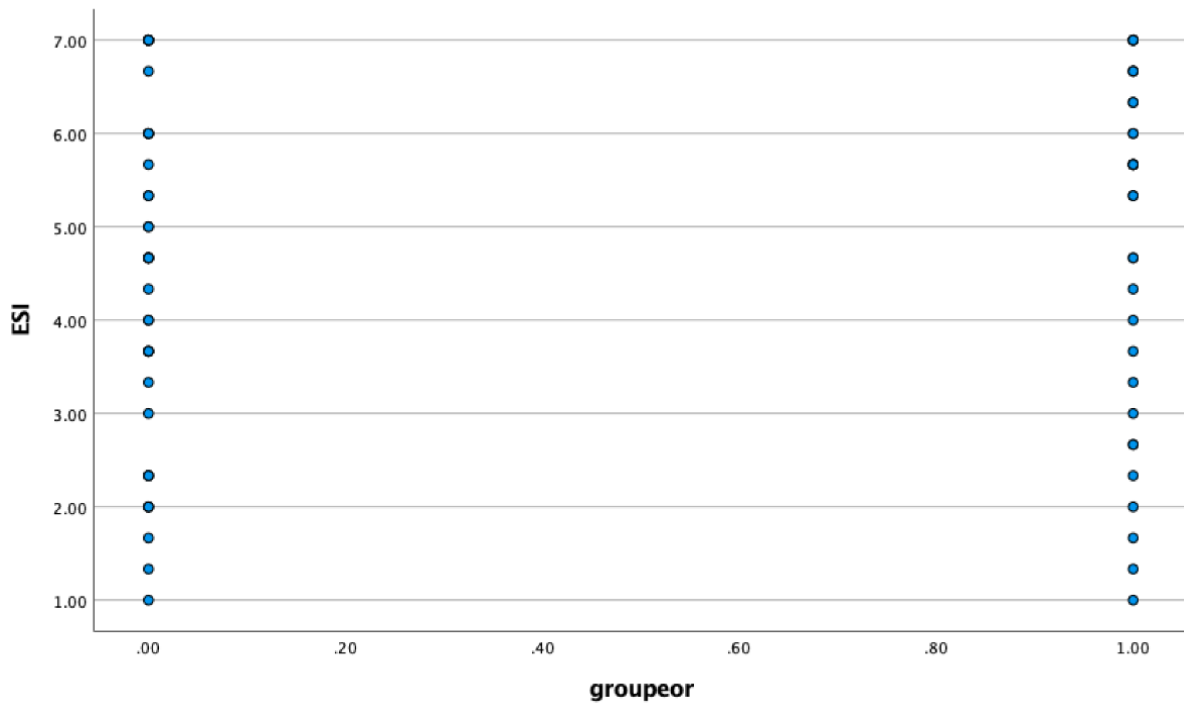
Normality

**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
<b>ESI</b>	.116	71	.018	.933	71	<.001

a. Lilliefors Significance Correction

Linearity



Independence of Residuals

**Model Summary<sup>b,c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.068 <sup>a</sup>	.005	-.010	2.53088	1.891

a. Predictors: (Constant), groupeor

b. Dependent Variable: ESI

Equal Variance

**Tests of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
ESI	Based on Mean	.173	1	69	.678
	Based on Median	.026	1	69	.872
	Based on Median and with adjusted df	.026	1	66.102	.872
	Based on trimmed mean	.145	1	69	.705