The Influence of Public Participation on Project Acceptability and the Willingness to Participate in the Decision-Making Process

Merel van der Ham, Jerke Hoekstra, Fardau Koster, Bianca Muranyi, Kira Urmes and

Stephanie Zuurman

Faculty of Behavioural and Social Sciences, University of Groningen

PSB3-BT Bachelor Thesis

Dr. G. Perlaviciute

10th of January 2022

Abstract

In order to keep the planet in an inhabitable state, humans need to change their behaviour. A behavioural change with high mitigation potential is a dietary shift. However, when policies are enforced without involving the public, there is little public support for the policy. It is known that public participation can influence project acceptability. However, the role values and interest in politics can play in project acceptability and the willingness to participate in the decision-making process on the sustainable policy has not yet been explored. In this study, we looked at the relationship between values in public participation and project acceptability, with the expectation that project acceptability will be higher when more different values are discussed during in the public participation process. Additionally, we looked at the relationship between political interest and willingness to participate. The expectation is that there is a positive relationship between the two variables, regardless of the values in the public participation process. We designed a between-subjects online experimental questionnaire study (N = 108), in which public participation was manipulated with a scenario describing different consequences of the carbon tax on food policy expressed in different values. Results of the study show that there were no differences in project acceptability between different values, and that a higher level of political interest is related to a higher willingness to participate, regardless of values. We conclude that it would be useful to keep interest in politics in mind when inviting the public to engage in the decision-making process.

Keywords: values, public participation, project acceptability, political interest, sustainable policy

2

The Influence of Public Participation on Project Acceptability and the Willingness to Participate in the Decision-Making Process

In order to keep the planet in an inhabitable state, humans need to change their behaviour. In this current day and age, human activities are the main reason our planet's environment is at risk of being permanently damaged, making us responsible for our future on this planet (Rockström et al., 2009). To mitigate climate change, we need to change parts of our daily life, which most people expect will influence the Quality of Life (Perlaviciute & Steg, 2012). Quality of Life refers to the extent to which people's needs and values are fulfilled (Perlaviciute & Steg, 2012). Schwartz (1992) stated that values are the general goals that guide people in their lives. As has been described by Steg et al. (2014), the values a person has can influence their perspective on a situation and how they evaluate information. In general, changes forced by authorities may not always be the best way to motivate people to change their behaviour. It has been shown that introducing new policies without involving the public until after the decisions have been made, creates little public support for projects, specifically for policies implementing sustainable energy solutions (Liu et al., 2020). Assuming the same goes for policies that motivate sustainability in other parts of daily life, it might be useful to study how public participation in the decision-making process influences the acceptability of policies that implement sustainability. Since the changes that contribute to a more sustainable life are likely to impact people's lifestyle and possibly conflict with some people's values, it is important these changes are accepted by the public.

Climate change mitigation

There are many ways people can make their daily life more sustainable, but some behavioural changes are more influential than others. Among other options, Ivanova et al. (2020) suggested dietary and transport mode shifts as consumption options with the highest mitigation potential. Shifts in transport mode have already started happening in the

Netherlands, an example being how both the use of electric cars and the amount of publicly available charging stations for electric cars have been increasing in the Netherlands (Centraal Bureau voor de Statistiek, 2020; Rijksdients voor Ondernemend Nederland, 2021). When looking at dietary shifts, there might be room for improvement. A study by Kloosterman et al. (2021) shows that animal products, like meat, are an important part of most Dutch adults' diets. Even though Dutch people ate less animal products in 2020 compared to the year before, about two-thirds of Dutch people still eat animal products on a regular basis and are not planning on changing their diet (Kloosterman et al., 2021). Considering something needs to change in order to mitigate climate change, it might be useful to focus on dietary change. Ivanova et al. (2020) talked about encouraging low carbon emission foods and motivating the idea of having plant-based foods as the default choice to try and motivate a change in diet. As mentioned earlier, forcing people to stop eating certain foods might not be the best option. Since people associate a change of this magnitude in lifestyle with a decrease in comfort and freedom, it might cause resistance (Perlaviciute & Steg, 2012). In reaction to a forced change that people expect will have a big impact on their lives, people might be inclined to do the opposite. For example, eating more animal products or publicly advocating for a diet that includes animal products as a way to resist the idea of raising prices of animal products. A situation like this was seen in Spanish politicians when a meat tax was proposed (Wax, 2021).

Ways to involve the public

We define public participation as the engagement of the public in the planning, development, implementation, management, and assessment of a given policy through an organized process (Perlaviciute, 2019). Several studies have shown that people are more accepting of a project when they were involved in the decision-making process of project (Dietz, 2013; Jacquet, 2015; Liu et al., 2020; Peterson, 1999). This motivates the idea that it is useful to engage people in the process of policymaking (Perlaviciute, 2019). It has been

shown that public participation is an important factor in achieving project acceptability of sustainable energy projects, (Breukers & Wolsink, 2007) and projects motivating sustainability in general (Dietz & Stern, 2008). However, there are still parts of public participation that are not yet fully understood, like what motivates people's willingness to engage in public participation and how public participation should be structured to lead to higher acceptability of a project.

Firstly, it is not entirely clear what motivates people to participate in the decisionmaking process of sustainable policies. It is important to know which factors might influence the willingness to participate, since more public participation could lead to higher project acceptability. According to Perlaviciute et al. (2018), when people are involved from the beginning of the decision-making process and given room to discuss different values and interests, participation in the decision-making process can lead to higher project acceptability. Furthermore, Dietz (2013) stated that public participation, when organised in the right way, can lead to decisions of higher quality. Perlaviciute (2019) mentioned that the acceptability of energy projects could be influenced in a positive way by increasing participation in the decision- making process. A factor that is worth considering in the willingness to engage in public participation is the initial political interest people have. A study from Schmeets (2017) shows a link between political interest and the frequency of participation in municipality meetings by Dutch citizens. Therefore, it might be possible that if there is no interest in politics to begin with, someone might not be interested in being involved in the decisionmaking process of policies. It is possible that, even when changes that matter to someone are being discussed, the level of interest in politics influences whether someone is interested in engaging in the decision-making process.

Secondly, multiple factors should be considered when it comes to the way public participation is structured. These must be taken into account when asking people to participate

in a discussion about a project, since this might influence the project acceptability. So, what defines good public participation? According to Liu et al. (2020) it should be acknowledged that everyone has different perspectives and values, meaning that both facts about the project and the influences it might have on what different people value, should be discussed. As Perlaviciute (2019) stated, public participation should include the different values people have to result in more socially acceptable projects. If people feel like a project will impact their life or something they value, they might be more willing to participate in a discussion about the project (Liu et al., 2020), thus possibly being more accepting of the project (Perlaviciute et al. (2018). However, people might be inclined to reject a project altogether if they feel like there is no attention for what they value. Building on the knowledge that people tend to be more accepting of projects when their opinions are heard and people feel like their input is considered (Dietz, 2013) and the fact that good public participation includes all values and perspectives (Perlaviciute, 2019), values could be a relevant addition when structuring public participation. According to Perlaviciute et al. (2018), values could be the reason people have negative or positive reactions to a sustainable project, which is useful to keep in mind, since a negative opinion about a project could lead to lower project acceptability.

Therefore, it might be useful to study how including values and structuring the way they are talked about can influence the acceptability of a project. The values that might influence the acceptability of a project are, among others, biospheric values and egoistic values (Perlaviciute, 2019). A policy motivating sustainability will very likely affect the environment, as well as price and availability of certain resources. People who have biospheric values are concerned with protecting the environment, while people with egoistic values are concerned with protecting personal resources (Perlaviciute & Steg, 2014). Additionally, Perlaviciute and Steg (2012) show that when anticipating a sustainable change, like increasing the costs of regular car usage, people will expect an increase in Quality of Life

concerning the environment. This can be linked to the biospheric value. People also expect a decrease in terms of comfort, money, and freedom, which can be linked to the egoistic value. Therefore, it could be useful to include these values when asking people about their opinion on a policy that motivates sustainable behaviour.

The study

The study discussed in this paper will be conducted to see whether values in public participation can be linked to project acceptability. Additionally, we will explore the relationship between interest in politics and the willingness to engage in public participation, and whether values influence this relationship. The topic of a study needs to be realistic and relevant for participants to be interested. As mentioned before, someone changing their diet is an influential behaviour that has a high potential to mitigate climate change, but it is also a controversial topic for a lot of people. Therefore, we designed a survey study around the idea of a 'carbon tax on food': a tax that would compensate for the effect that producing high carbon foods, like animal products and imported foods, has on public health and the environment. The study will include experimental conditions in which the participants are motivated to focus on different types of consequences of the carbon tax on food policy. The consequences are based on either a single value (biospheric value or egoistic value) or both values. In this study, the following hypotheses will be tested.

Hypothesis 1: Project acceptability will be higher for participants in de condition with both values than participants in the single value conditions.

Hypothesis 2: Interest in politics will be related to the willingness to participate, specifically that participants who are more interested in politics will be more willing to participate in a public discussion than participants who are less interested in politics. Interest in politics will be related to the willingness to participate regardless of the condition the participant is in.

Method

Participants and Design

The sample was recruited within the researchers' personal social networks by means of sharing the survey via WhatsApp private messages and group chats, Instagram stories, and email. Out of 202 recorded responses, we included 108 participants in our analysis.

When looking at the data, it became clear that participants who left questions unanswered, had left either a few questions (up to three) or more than 10 questions blank. Thus, we chose to exclude participations who left more than three questions unanswered, as well as participants who answered the second attention check wrong¹, and who gave the answer 'do not use my data' at the final question of the survey. The sample consisted of 74 females and 34 males. The participants' age ranged from 17 to 63 (M = 25.4, SD = 10.64). Most participants were Dutch (71.7%) or German (14.8%). The most common educational level in our sample was bachelor's degree (60.2%), followed by master's degree (22.2%) and high school (14.8%).²

The results of an a priori power analysis based on an analysis of covariance

(ANCOVA) test, showed that 111 participants were needed to achieve an effect size of f = 0.4and a power of 0.8.

Manipulation of Public Participation Conditions

The participants were instructed to read a scenario which describes their local government considering the implementation of a carbon tax on food. The motivation that was described for a carbon tax on food was the increasing urgency of reducing carbon emissions

¹ When excluding the participants who did not pass the first and second attention check, the sample consisted of 61 participants

² For the sample with 61 participants, the sample consisted of 44 females and 17 males. The participants' average age ranged from 17 to 56 (M = 23.7, SD = 6.7). Most participants were Dutch (68.9%) or German (14.8%). The most common educational level in our sample was bachelor's degree (62.3%), followed by master's degree (24.6%) and high school (13.1%)

to meet the requirements of the Paris agreement (See Appendix A for the full text of the scenarios). The scenario described that the participants were invited to a meeting to discuss the implementation of the carbon tax and that the government would consider the public's opinion in their definitive decision about policy. It was described that the meeting would focus on specific consequences of the carbon tax on food policy, followed by some examples of consequences. Participants were assigned to one of three experimental conditions, in which they were informed that they would discuss either environmental, personal, or both environmental and personal consequences of a carbon tax on food policy during this meeting. Examples of the consequences differed per condition. Specifically, in the biospheric value condition, environmental consequences (e.g., less deforestation) of the carbon tax on food were mentioned. In the egoistic value condition, the consequences were personal (e.g., ensuring personal safety), and in the combined value condition, both environmental and personal consequences were mentioned. In each condition two positive and two negative consequences were mentioned. To assure the effectiveness of the manipulation, the participants were asked to list some consequences of the carbon tax that they would like to discuss during a meeting about the policy.

In our between-subjects experimental design, participants were randomly assigned to the conditions using the "evenly present elements" in Qualtrics, which ensures that there are approximately the same number of participants in each condition. The biospheric condition had 38 participants, the egoistic condition 36 participants, and the combined value condition 34 participants. ³

Procedure and Materials

The questionnaire was piloted between 1.11.2021 and 4.11.2021 by people from the personal social circles of the thesis group members. We asked these pilot participants to

³ For the sample with 61 participants, the biospheric condition had 15 participants, the egoistic condition 15 participants, and the combined value condition 31 participants.

provide feedback on how understandable the questionnaire was, and whether anything could be changed to improve the questionnaire. The feedback obtained during this pilot was used to rephrase some questions to make them clearer.

Participants were invited to further distribute the questionnaire within their own social networks. As mentioned before, the survey link was distributed via various digital social platforms. Data collection took place from 17.11.2021 to 29.11.2021. The online questionnaire was accessible through a link to the digital survey platform Qualtrics. The participants could fill in the survey on their own, using their laptop, desktop, smartphone, or tablet. Participants were able to contact one of the researchers in case there were questions before, during or after finishing the survey. Participation was voluntary, with no rewards granted, and participants were asked for their informed consent. The survey exclusively consisted of self-reports. Filling out the questionnaire took about 15 minutes. The participants were presented with the debriefing and a link for further sharing the questionnaire. Our research was ethically approved by the Ethics Committee Psychology of the University of Groningen.

The final survey was constructed with the measures described below. As this paper is part of a group project, additional measures were included in the survey; the only measures relevant to the present paper will be described.

Measures

Attention checks

To check whether participants read the scenario carefully and understood which consequences of the carbon tax on food would be discussed, we asked the following question: "According to the text you just read, what type of consequences of the carbon tax on food will be discussed in the public meetings?". Answer possibilities were "Environmental consequences" (the correct answer in the biospheric value condition), "Personal

consequences" (the correct answer in the egoistic value condition) and "Environmental and personal consequences" (the correct answer in the combined value condition). Results showed that in the final sample, 23 participants in the biospheric condition, 21 people in the egoistic condition, and 3 people in the combined condition answered this question incorrectly. A closer look at the data showed that those participants could still be assumed to have answered the remaining questions attentively, mainly because most of these participants passed the second attention check. Additionally, these participants filled out answers for the question about what consequences they would like to discuss during a public meeting about the carbon tax on food policy. Therefore, we did not exclude all participants who failed to provide the right answer to the first attention check. However, 63 out of 108 participants filled out a consequence that was mentioned in the text they read or filled out something very similar. This might indicate a limitation to the strength of our manipulation, therefore I also ran the analyses when excluding these participants in order to see whether that would change the patterns of results.

In the second attention check, halfway through the survey, the participants were asked if they were still paying attention and to mark the answer option 'somewhat disagree'. Participants who chose another answer option were excluded from the final analysis.

Demographics

Participants were asked to indicate their age, gender, nationality, and educational level.

Project Acceptability.

To measure the acceptability of the carbon tax policy, we used 4 items on a 7-point Likert scale from Liu et al. (2020). This included the following items: The extent to which participants found the proposed policy necessary (from 1 = very unnecessary to 7 = very necessary), acceptable (from 1 = not at all acceptable to 7 = very acceptable), good or bad

(from 1 = very bad to 7 = very good) and negative or positive (from 1 = very negative to 7 = very positive). The mean responses of the 4 items were combined to form the acceptability scale. Higher scores indicate a higher acceptability of the carbon tax policy. Project acceptability displayed good reliability with Cronbach's alpha of $\alpha = 0.895$ (M = 4.94, SD = 0.48).

Interest in politics

Participants were asked to rate their interest in politics on a 7-point Likert scale (1= *very uninterested* to 7 = *very interested*), preceded by the following question: "how interested are you in politics in your country?". This measure is based on previously used items mentioned in literature, for example "Generally, how interested are you in politics, if 0 means 'not at all interested' and 10 'very interested'?" (Prior, 2010, p. 749). The carbon tax that is talked about in the survey is being proposed by the local government, therefore interest in politics in the country of the participant is more relevant to ask about than interest in politics in general, which is why the question specifically states, "interest in politics in <u>your</u> country". The descriptive statistics of the measure are as following (M = 4.843, SD = 1.49).

Willingness to participate in the decision-making process on the sustainable policy

To measure willingness to participate in a government-organised meeting about the carbon tax on food policy, the following question was asked to participants: "Imagine that the local government invited you to a public meeting to discuss the implementation of the carbon tax, to what extent would you like to participate?", followed by a 7-point Likert scale (1 = not at all willing to participate to 7 = very much willing to participate). There is no established scale for measuring this willingness to participate. The item from the questionnaire was constructed with questions from a document meant for guiding the construction of questionnaires about intention (Ajzen, 2019) as reference. The descriptive statistics of the measure are as following (M = 4.75, SD = 1.34).

Results

All statistical analyses were conducted twice with two different datasets: one that includes the participants who did not pass the first attention check, and one that excludes these participants. The results for the smaller dataset are mentioned in the footnotes.

A one-way ANOVA analysis was conducted with the experimental conditions as independent variable and project acceptability as dependent variable. The differences in scores on project acceptability between the experimental conditions proved not significant $(F(2,105) = .277 = p = .759)^4$, thus not supporting the first hypothesis that participants in the condition with both values would report a higher level of project acceptability than participants in the other conditions.

Secondly, a simple linear regression analysis was conducted with interest in politics as the independent variable and willingness to participate in the decision-making process on the sustainable policy as dependent variable. Interest in politics explained a significant amount of variance in the willingness to participate (F(1,106) = 6.52, p = .012, $R^2_{adjusted} = .049$). The regression coefficient (B = .215)⁵ indicates that when a participant scored one point higher on the scale for interest in politics, on average an increase of .215 on the willingness to participate was found.

Lastly, a moderated multiple regression analysis was conducted with the interest in politics as the independent variable, the experimental conditions as moderator variable and the willingness to participate as dependent variable. The analysis was conducted to see if the relationship between interest in politics and the willingness to participate, as established by

⁴ For the sample with 61 participants the following results were found: (F(2,58) = .716 = p = .493). The significance of the results did not differ between the two samples

⁵ For the sample with 61 participants, the following results were found: (F(1,59) = 1.306, p = .258, $R^2_{adjusted} = .005$) with a regression coefficient of (B = .123), thus not explaining a significant amount of variance in the willingness to participate

the linear regression analysis mentioned above, is moderated by the experimental conditions. The interaction between the interest in politics and the experimental conditions was found not significant [B = -0.69, 95% C.I. (-.277, .139), p = .511]⁶. This means no differences were found in the score on willingness to participate between the different experimental conditions, therefore not identifying the experimental conditions as moderator of the effect between the interest in politics and the willingness to participate.

These results support the hypothesis that a high score on interest in politics is linked to a high score on the willingness to participate. The expectation that the experimental conditions do not affect the effect the relationship between interest in politics and the willingness to participate is supported by the fact that no significant differences were found in the willingness to participate between the experimental conditions when controlled for the interest in politics.

⁶ In the sample with 61 participants, the following results were found: [B = -.102, 95% C.I. (-.393, .190), p

^{=.488],} which did not differ in significance from the results from the bigger sample

Discussion

In this study we looked at the relationship between public participation and project acceptability, as well as the effect interest on politics might have on the willingness to participate in the decision-making process on the sustainable policy. Based on several sources (Breukers & Wolsink, 2007; Dietz, 2013; Jacquet, 2015; Liu et al., 2020; Peterson, 1999; Perlaviciute, 2019) we hypothesised that including more values in the decision-making process would lead to a higher level of project acceptability compared to when a single value was considered during the decision-making process. Thus, we expected that participants in the condition with both values would report a higher level of project acceptability than participants in the other conditions. Our second hypothesis consisted of the expectation that the political interest a participant has and the willingness to participate could be linked (Schmeets, 2017), regardless of which condition the participant was in. We expected to find a significant relationship between political interest and the willingness to participate, as well as no significant moderation effect of the experimental conditions on this relationship.

The results from the study showed that the first hypothesis was not supported by the data, thus no support was found for the expectation that being in the condition with both values would lead to a higher level of project acceptability than being in the condition with either of the values. The second hypothesis was supported by the data, thus support was found for the expectation that political interest relates to the willingness to participate, regardless of values.

Theoretical and practical implications

There are both theoretical and practical implications for this study. Concerning the theoretical implications, results of this study are not in line with the literature on the effect of including values in public participation on project acceptability (Dietz, 2013; Liu et al., 2020;

Perlaviciute, 2019). The results of this study might not be line with existing literature on this topic because the manipulation was not successful. This possibility will be explored along with other possible limitations later. Additionally, our second hypothesis was not supported by results from the smaller sample. This is why it is important to exercise caution when drawing conclusions about practical and theoretical implications based on the results on the relationship between willingness to participate and interest in politics.

A possibility is that values do not play as big of a role as expected. It is theorised that including different values leads to people being more accepting of a project (Dietz, 2013), but perhaps values do not have this effect for every type of project. In our study we introduced the idea of a carbon tax on food, causing foods that have a bigger carbon footprint to be more expensive. These foods include animal products, which is a big staple for most households (Kloosterman et al., 2021), meaning that groceries would become more expensive for most people. People might not accept a project that makes their life more expensive, even when they feel like their point of view is being considered while designing the policy. When comparing this to other sustainable policies, for example driving electric cars, the personal sacrifices might not be as big, since electric cars are becoming more available at an affordable price. Alternatively, values might not play a significant role in general. There might be other factors that influence project acceptability. For example, project acceptability might be more dependent on things like involvement in the project, or the way information about the project is communicated. It seems safe to assume that people prefer to be informed of important parts about a project, but whether their point of view will be considered might not be as important as the way the information is communicated. Perhaps more personal ways of communicating information, like a staff member from the municipality visiting in person to explain a project, could lead to someone being more accepting of a project than when the communication is less

16

personal, like via email. People might be more involved in the project because of this, therefore possibly leading to more project acceptability.

Even though the results of this study challenge the existing theory that including values in public participation can influence project acceptability (Dietz, 2013; Perlaviciute, 2019; Liu et al., 2020), it is important to keep in mind that the manipulation in the study might not have been successful. Therefore, caution should be exercised when thinking about what the results of this study mean for the relationship between values in public participation and project acceptability.

As for the literature on the relationship between interest in politics and the willingness to participate in the decision-making process (Schmeets, 2017), results of the study were as expected. The results of this study support the literature, showing that when someone is more interested in politics, they are also more willing to participate in the decision-making process. The reason interest in politics could lead to more willingness to participate is that people who have an interest in politics are more interested in meetings hosted by the municipality and being involved in the decision-making process of policies in general. However, the way our study measured these concepts does not allow us to conclude the direction of the relationship between the interest in politics and the willingness to participate. It might be possible that someone becomes more interested in politics is a result of engaging in public participation, rather than it leading to willingness to participate.

As for practical implications of the study, the design of the study is worth evaluating. A questionnaire study might not have been a suitable design for this research topic since a situation needs to be realistic enough for people to feel involved. Liu et al. (2020) stated that people might be more willing to participate in the decision-making process if they feel something they value will be impacted. A questionnaire might not have been enough to get

people to feel like something they value is changing. This can be useful to keep in mind for other researchers when designing a study that focusses on public participation and values. When considering values in public participation, it might be useful to focus on different factors that can influence project acceptability. For example, it is mentioned that people usually associate sustainable changes with positive biospheric consequences and negative personal consequences (Perlaviciute & Steg, 2012). When informing people about a sustainable policy, it might be useful to focus on the biospheric, therefore likely positive, consequences rather than the personal, and likely negative, consequences. This might lead people to feel more positive and accepting of a project.

We looked at the answers people gave on the open question about consequences they would like to discuss during a meeting about the policy. The most recurring consequence that participants expressed was that low-income families would not be able to afford daily groceries due to the tax, and that the gap between rich and poor people would become even bigger. This possible consequence was not mentioned in the scenario, but it seems to be important to many participants. This can be considered when communicating the consequences of a sustainable policy, since we think people might appreciate being informed about them. For example, assuring people that daily groceries will still be affordable for lower income families, or that this will be considered when designing the policy.

When considering how interest in politics might motivate people to engage in the decision-making process on sustainable policies, it is worth paying attention to what causes people to be interested in politics. If interest in politics leads to more willingness to participate, it might be useful to explore what causes people to be interested in politics and focus on these factors when communicating information about a sustainable project or policy. If engaging in the decision-making process on sustainable policies causes people to be more interested in politics, it might be useful to investigate why this is the case, and what effect

engagement in the decision-making process might have on project acceptability. The measure *willingness to participate in the decision-making process on the sustainable policy* was used in our study. Even though significant results were found in this study concerning this measure, intention does not necessarily equal someone's behaviour (Ajzen, 2019). Since the willingness to participate might not equal actual participation in the decision-making process, it is not guaranteed that the willingness to participate influences the project acceptability like the actual public participation is theorised to have (Dietz, 2013). Therefore, when considering how political interest could motivate people to engage in the decision-making process on a sustainable policy, it is useful to keep in mind that this might not be as effective as actual public participation.

Limitations and directions for future research

A few limitations are worth mentioning. Firstly, a considerably small sample of participants was left after excluding all participants who did not pass either of the attention checks. The first attention check was added to the survey to check whether people paid attention to the scenario and understood what they had read. A total of 47 participants were excluded based on the first attention check. As mentioned in the results, the only significant differences between results when comparing the analyses conducted with the two different samples was on the simple linear regression between interest in politics and willingness to participate. Out of this total, 43 participants wrongly chose the 'Personal and Environmental consequences' option while they had been showed the scenario with either of the values. A possibility is that participants who belonged to the 43 participants chose the answer option because they were not sure what the right answer was, but recognised either of the consequences. This leads us to conclude that people either misunderstood the manipulation, were not involved enough in the scenario to thoroughly read the scenarios, or were unable to imagine

that only one type of value would be discussed during a meeting about the policy. The scenario might not have been clear enough, since we did receive feedback from people who had participated in the (pilot) study, mentioning that the questionnaire was surprisingly complicated.

Additionally, we only used two of the four values that might influence project acceptability (Perlaviciute, 2019) for the experimental conditions. This might also have influenced the results, since there is a possibility that the values we included in the study might not influence project acceptability in the same way as when all values are included. This might be a reason to suspect that the manipulation of public participation through values was not effective. Another limitation might be that the manipulation might not have been realistic enough. As discussed earlier, 63 participants mentioned a consequence that was given in the text, or something very similar when answering the open question that followed the scenario. We conclude from this that either the text was complicated, or that the participants were not involved enough to think of other consequences. There is no way of confirming that participants were actively imaging the scenario throughout the entirety of the questionnaire. Since the manipulation only works if participants are involved and feel like things that matter to them are discussed, public participation might not have been properly manipulated. This means that the study might not have been effective in showing what effects values in public participation might have on project acceptability.

Finally, the measure *willingness to participate in the decision-making process on the sustainable policy* has not been used before in studies, and the level of construct validity has not been determined yet. There is no guarantee that this question properly measures the construct it is supposed to measure. Since the willingness to participate might also not properly reflect actual public participation, it might be useful to consider a more real-life approach of studying the relationship between political interest and the willingness to

20

participate. Something that could be included in future research, is the causality between the interest in politics and the willingness to participate. It is not clear whether the interest in politics motivated the willingness to participate, or whether public participation results in more interest in politics. It might be interesting to explore how the willingness to participate relates to project acceptability, as well as considering how the interest in politics plays a role in this relationship.

Conclusions

As is supported by the data from this study, interest in politics can lead to a higher willingness to participate, which in turn could lead to higher project acceptability. Everything considered, it is worth exploring whether other factors can influence project acceptability. As mentioned earlier in the discussion, the way information about a policy is communicated could also play a role. Consequently, I would like to encourage more research on both topics to explore in what way and degree they could influence project acceptability.

References

- Arvai, J. L. (2003). Using risk communication to disclose the outcome of a participatory decision-making process: Effects on the perceived acceptability of risk policy decisions. *Risk Analysis*, 23, 281-289. <u>http://doi.org/10.1111/1539-6924.00308</u>
- Ajzen, I. (2019, March 21st). Constructing a Theory of Planned Behaviour Questionnaire. <u>https://www.researchgate.net/publication/235913732_Constructing_a_Theory_of_P</u> <u>lanned_Behavior_Questionnaire</u>
- Breukers, S., & Wolsink, M. (2007). Wind power implementation in changing institutional landscapes: an international comparison, *Energy Policy 35*(5), 2737– 2750.http://doi.org/10.1016/j.enpol.2006.12.004
- Centraal Bureau voor de Statistiek (2021, October 8th). From *Elektrische personenauto's naar provincie*, 2018-2021. [Statistic database]. <u>https://www.cbs.nl/nl-nl/maatwerk/2021/40/elektrische-personenauto-s-naar-provincie-2018-2021</u>
- Dietz, T. (2013). Bringing values and deliberation to science communication. Proceedings of the National Academy of Sciences, 110(Supplement 3), 14081-14087. https://doi.org/10.1073/pnas.1212740110
- Dietz, T. & Stern, P. C. (2008). Public Participation in Environmental Assessment and Decision Making. *National Research Council*. https://doi.org/10.17226/12434
- Ivanova, D., Barrett, J., Wiedenhofer, D., Macura, B., Callaghan, M., & Creutzig F.
 (2020). Quantifying the potential for climate change mitigation of consumption options. *Environmental Research Letters*, 15, 1-19.
 https://doi.org/10.1088/1749326/ab8589
- Jacquet, J. B. (2015). The rise of "Private Participation" in the planning of energy projects in the rural United States, Soc. *Natural Resources*, 28 (3), 231–245. <u>http://doi.org/10.1080/08941920.2014.945056</u>

Kloosterman, R., Akkermans, M., Reep, C., Wingen, M., Molnár-In 't Veld, H., & Van Beuningen., J. (2021, 4th of June). *Klimaatverandering en energietransitie:* opvattingen en gedrag van Nederlanders in 2020. <u>https://www.cbs.nl/nl-</u> nl/longread/rapportages/2021/klimaatverandering-en-energietransitie-opvattingenen-gedrag-van-nederlanders-in-2020

Liu, L., Bouman, T., Perlaviciute, G., & Steg L. (2020). Public participation in decision making, perceived procedural fairness and public acceptability of renewable energy projects. *Energy and Climate Change*, 1.

https://doi.org/10.1016/j.egycc.2020.100013

- Perlaviciute, G., Schuitema, G., Devine-Wright, P., & Ram, B. (2018). At the Heart Of a Sustainable Energy Transition. *IEEE Power and Energy Magazine*, *16*(1), 49-55. <u>https://doi.org/10.1109/MPE.2017.2759918</u>
- Perlaviciute, G., & Steg, L. (2012). Environment and quality of life. In L. Steg, A. E. van den Berg, & J. I. M. de Groot (Eds.), Environmental psychology: An introduction (pp. 107-118). Wiley-Blackwell.
- Perlaviciute, G., & Steg, L. (2014). Contextual and psychological factors shaping evaluations and acceptability of energy alternatives: Integrated review and research agenda. *Renewable and Sustainable Energy Reviews*, 35, 361–381. https://doi.org/10.1016/j.rser.2014.04.003
- Perlaviciute, G., Steg, L., Contzen, N., Roeser, S., & Huijts, N. (2018). Emotional responses to energy projects: Insights for responsible decision making in a sustainable energy transition. *Sustainability*, 10(7).

https://doi.org/10.3390/su10072526

Perlaviciute, G. (2019). Public participation in decision making on energy projects, when does it lead to better and more acceptable energy projects? In Squintani, L., Darpö,

J., Lavrysen, L., & Stoll, P-T. (Eds.) *Managing facts and feelings in environmental governance* (pp. 10-21). Edward Elgar Publishing.

Peterson, R. S. (1999). Can you have too much of a good thing? The limits of voice for improving satisfaction with leaders. *Personality and Social Psychology Bulletin*, 25, 313-324. <u>https://doi.org/10.1177/0146167299025003004</u>

Prior, M. (2010). You've Either Got It or You Don't? The Stability of Political Interest over the Life Cycle. *The Journal of Politics*, 72(3), 747-766. <u>https://doi.org/10.1017/S0022381610000149</u>

- Rijksdienst voor Ondernemend Nederland (2021, november 4th). Cijfers elektrisch vervoer. *Elektrisch rijden*. <u>https://www.rvo.nl/onderwerpen/duurzaam-</u> <u>ondernemen/energie-en-milieu-innovaties/elektrisch-rijden/stand-van-zaken/cijfers-</u> <u>elektrisch-vervoer</u>
- Rockström, J., Steffen W., Noone, K., Persson, A., Chapin, F. S., I, I. I., Lambin, E. F.,
 Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H. J., Nykvist, B., de Wit, C.
 A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza,
 R., Svedin, U., ... Foley, J. A. (2009). A safe operating space for humanity. *Nature*, 461(7263), 472–475.
- Schmeets, H. (2017). Politieke betrokkenheid in Nederland. *Statistische Trends*. Centraal Bureau voor de Statistiek. <u>https://www.cbs.nl/nl-nl/achtergrond/2017/50/politieke-betrokkenheid-in-nederland</u>
- Schwartz, S.H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. Advances in Experimental Social Psychology, 25, 1–65. <u>https://doi.org/10.1016/S0065-2601(08)60281-6</u>
- Steg, L., Perlaviciute, G., Van der Werff, E., & Lurvink, J. (2014). The significance of hedonic values for environmentally relevant attitudes, preferences, and actions.

Environment and behavior, 46(2), 163-192.

https://doi.org/10.1177/0013916512454730

Appendix A

Full text conditions

Biospheric condition

Due to the increasing urgency of reducing carbon emissions to meet the requirements of the Paris agreement, your local government is considering implementing a carbon tax on products like meat, cheese, avocados, bananas etc. A carbon tax on food is a policy that influences the price of food, based on how much carbon dioxide (CO2) is emitted through the production of these foods. To address any possible public concerns, the government will invite the public to a meeting to discuss the implementation of the carbon tax, aiming to find a well-adjusted consensus on the topic. The discussion will focus on the **environmental consequences**, of which a few are mentioned below.

The government will consider the public's opinion about the environmental consequences of the carbon tax on food in their definitive decision in January 2022 about whether the carbon tax is an appropriate measure to meet the Paris agreement.

Examples of environmental consequences of the carbon tax on food to be discussed in public meetings:

Positive consequences:

- Reduced global warming

- Less deforestation

Negative consequences:

- People may feel that they are entitled to consume high-carbon-emitting products if they can pay for them, which could lead to more purchases of such products

- Neglecting the effect of other greenhouse gasses like methane and water vapor that harm the environment even more

Personal condition

Due to the increasing urgency of reducing carbon emissions to meet the requirements of the Paris agreement, your local government is considering implementing a carbon tax on products like meat, cheese, avocados, bananas etc. A carbon tax on food is a policy that influences the price of food, based on how much carbon dioxide (CO2) is emitted through the production of these foods. To address any possible public concerns, the government will invite the public to a meeting to discuss the implementation of the carbon tax, aiming to find a well-adjusted consensus on the topic. The discussion will focus on the **personal consequences**, of which a few are mentioned below.

The government will consider the public's opinion about the personal consequences of the carbon tax on food in their definitive decision in January 2022 about whether the carbon tax is an appropriate measure to meet the Paris agreement.

Examples of personal consequences of the carbon tax on food to be discussed in public meetings:

Positive consequences:

- Ensuring personal safety by preventing increasingly intense natural disaster
- Increased individual well-being due to reduced pollution of water and air

Negative consequences:

- Increased costs of daily groceries
- Decreased choice of products because of insufficient alternatives to high-emission products

Personal and egoistic condition

Due to the increasing urgency of reducing carbon emissions to meet the requirements of the Paris agreement, your local government is considering implementing a carbon tax on products like meat, cheese, avocados, bananas etc. A carbon tax on food is a policy that influences the price of food, based on how much carbon dioxide (CO2) is emitted through the production of these foods. To address any possible public concerns, the government will invite the public to a meeting to discuss the implementation of the carbon tax, aiming to find a well-adjusted consensus on the topic. The discussion will focus on **environmental consequences and personal consequences**, of which a few are mentioned below.

The government will consider the public's opinion about the environmental and personal consequences of the carbon tax on food in their definitive decision in January 2022 about whether a carbon tax is an appropriate measure to meet the Paris agreement.

Examples of environmental and personal consequences of the carbon tax on food to be discussed in public meetings:

Positive consequences:

- Reduced global warming

- Ensure personal safety by preventing increasingly intense natural disasters

Negative consequences:

- Neglecting the effect of other greenhouse gasses like methane and water vapor that harm the environment even more

- Increased costs of daily groceries