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Educating Others and Affirming one's Moral
Virtuousness – Investigating Two Motivational
Pathways that Drive the Expression of Extreme
Pro-Environmental Opinions

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Abstract

In recent years, opinions and views about climate change and climate policy have been framed in a polarized way. Extreme views and opinions contribute to this polarized narrative by creating an ‘us versus them’ dynamic and reinforcing the idea that concerns about climate change and the economy cannot coincide. To better understand polarization, the current study is aimed at gaining additional insight into what drives those who express their extreme pro-environmental opinions. To do so, we proposed and tested a model consisting of two relatively novel motivational pathways which may play a role in driving extreme expressions. The first pathway states that a sense of urgency regarding climate change may drive a desire to educate others about the issue, which in turn motivates extreme expressions. The second pathway states that extreme expressions may be motivated by a desire to reaffirm one’s morality, driven by feelings of shame and guilt that may arise from the moralisation of climate change. Our survey results are in line with both of these pathways. Thus, our findings suggest these drivers should be considered in future research on extreme behaviour.

Educating Others and Affirming one's Moral Virtuousness – Investigating Two Motivational Pathways that Drive the Expression of Extreme Pro-Environmental Opinions

In recent years, opinions and views about climate change and climate policy have been framed in a polarized way, depicting concerns about climate change and concerns about the economy as opposing matters which cannot coincide. In the Netherlands for instance, several prominent politicians have framed climate policy plans in terms of potential harm to the economy, creating an image that climate policy and economic growth are antagonistic, and contributing to group polarization into 'pro-climate' versus 'pro-economy' factions (Weissenbacher, 2022). According to Weissenbacher (2022), this polarized framing of climate policy is also evident in online discussions regarding the topic, with pro-economy individuals arguing that consequences of climate policy will 'break the economy', and pro-climate individuals arguing that the economy is insignificant when it comes to climate change. These views reflect the perception that the debate on climate change and the economy is an either/or case, in which one has to 'pick a side'. Such views will be referred to as 'extreme opinions'. One illustration of the polarization of opinions on climate policy is the rise of pro-environmental action groups such as Fridays for Future and Extinction Rebellion in the Netherlands, which use protest to voice their extreme pro-climate (policy) opinions in ways that divide.

In this dissertation, I consider extreme views and opinions those that foster polarization by contributing to a divisive 'us versus them' dynamic (Turner & Smaldino, 2018). Thus, these expressions of extreme opinions about climate change potentially strengthen perceptions of pro-climate vs. pro-economy 'camps'. What is problematic, in my view, about such extreme viewpoints is that they misrepresent reality. Looking at attitude research, these camps do not seem to be prevalent, because the majority (80%) of Dutch

citizens agree that climate change is a very serious problem (Van der Schelde, 2022). But when this is taken to extremes, camps might still form even though the vast majority believe the climate needs saving. To illustrate, a recent survey has indicated that most Dutch citizens find Extinction Rebellion's (non-violent) protests undesirable (83%) and unacceptable (78%) (Van der Schelde, 2022). This suggests that the expression of extreme pro-environmental opinions can potentially contribute to the formation of camps and thereby be counterproductive: casting a mission with which virtually everyone agrees in the starkest of terms to enforce taking sides, is likely to elicit resistance from those not ready for the most drastic actions yet (e.g., Jacks & Cameron, 2003; Saucier et al., 2014).

To better understand polarisation, it is interesting to understand what motivates people to engage in extreme expression. Considering this, the aim of current study was to gain additional understanding of what drives those who take an extreme stand in the 'climate vs. economy' debate, specifically on the pro-climate side. To do so, we introduce a model proposing two relatively novel pathways which might play a role in extreme expressions. Our model uses the structure of other commonly used models, which explain collective action and such. In this structure, the assumption is that behaviour is proximately predicted by motives. These motives can be driven by certain emotions, which in turn stem from one's perceptions or beliefs. This structure is exemplified by models such as the Dual Pathway Model of Collective Action and SIMCA (van Zomeren et al., 2004; 2008). Following this structure, our model includes motives, emotions, and perceptions, which we suggest play a role in driving extreme expressions. The current study adopted a mixed method approach; quantitative data was collected to test the proposed model, and qualitative data was collected to gain additional insight into the drivers and characteristics of extreme expression.

Extreme Expression

Extreme expression refers to expression of polarized views or opinions that reflect the idea that a certain subject is an either/or situation. The current study focuses specifically on expressions of views or opinions on the ‘pro-climate’ side of the climate policy versus economy debate (i.e., *extreme pro-environmental expression*). Extreme expression can occur through various channels, such as via demonstrations, in media, or in conversations with (close) others. An additional channel for extreme expression is social media. Media such as X (twitter.com), Facebook, and Instagram can be used as outlets for extreme expression.

An example of an extreme pro-environmental expression is the following statement, which was posted on X:

Will you get it into your thick head that the economy is insignificant if the predictions related to #globalwarming happen. Already all over the planet climate changes are apparent and the world as we know it is going beyond the tipping point.

#ClimateCrisis #savetheplanet (Weston, 2023)

The previous statement is considered an extreme pro-environmental expression, as its content falls on the pro-climate side of the climate versus economy debate; the poster states that the economy does not matter, suggesting we have to choose protecting the environment over the economy.

The current literature provides evidence for several factors which seem to drive radical expressions. For instance, previous studies have explored various drivers of radical collective action, such as efficacy beliefs, anger, contempt, and feelings of injustice (e.g., Tausch et al., 2011). A recent study by Weissenbacher (2022) that looks more specifically at the kinds of extreme (polarizing) expressions described above, suggests that for this topic two additional factors might play a role. Weissenbacher (2022) conducted a qualitative, explorative study, aimed at identifying motivations for extreme expressions online regarding the debate of climate policy versus the economy. Participants who indicated that they express themselves

extremely on the topic of climate change were interviewed. Firstly, these interviews revealed that, when people are asked why they engage in extreme expression about climate change, the primary motive they mention is the desire to educate others about the topic. Secondly, the author noticed that the participants were eager to discuss their personal pro-environmental virtues. This suggests that the participants had a desire to affirm to the interviewer how exemplary they themselves are in relation to the environment. These two findings provided an interesting perspective on extreme behaviour, as these factors have not been studied yet in relation to radical collective action more generally. Based on the previous study, we propose two pathways which may play a role in driving extreme expressions. The current study focuses specifically on exploring these two newly developed pathways, to extend the prior research on radical CA.

Introducing a Model of Extreme Pro-Environmental Expression

To gain additional understanding of what drives those who take an extreme stance in the debate of climate policy vs. the economy, the current study proposes a model to explain extreme pro-environmental expression. Following the formerly mentioned structure, the model includes motives, emotions, and perceptions that are hypothesized to precede extreme pro-environmental expressions. The model is composed of two motivational pathways leading to extreme expressions. In the following sections, the two pathways will be discussed in detail.

The Educator Pathway

The study by Weissenbacher (2022) revealed that the overarching goal of those interviewed who expressed extreme pro-environmental views online, was informing others and raising awareness about climate change, ideally to influence others' behaviour. This motive of educating others has not been studied further in relation to other radical expressions. Considering Weissenbacher's (2022) study was a relatively small, qualitative

study with a sample size of $N = 6$, this motive requires further investigation. Based on the previous finding, we propose that the goal to educate people about the topic of climate change may motivate extreme pro-environmental expressions. Hence, the first proximate predictor of extreme pro-environmental expression included in the model is ‘educating others’. Adhering to the previously mentioned structure used to explain behaviour leads us to question which emotion drives this motivation to educate others about climate change. However, Weissenbacher’s (2022) study did not shine a light on any emotions that may be relevant. Therefore, we do not have a hypothesis regarding this question.

The Role of Perceived Urgency. With regard to perceptions that may play a role in driving the motivation to educate others about climate change, aforementioned study by Weissenbacher (2022) revealed that all participants experienced and expressed a sense of urgency regarding climate change. The interviewees perceived climate change as an important issue that requires immediate action. This was demonstrated by statements such as “[...] I am sending the same message on one level as well as the other. It's urgent, it's urgent, it's urgent.” (Weissenbacher, 2022). The perceived urgency of climate change was interpreted as the main driver of participants’ extreme expressions (Weissenbacher, 2022). We propose this perceived urgency of the issue may be related to the motive to educate others about it, as such that those who consider climate change an issue that requires immediate action, are more likely to be motivated to raise awareness about it (i.e., educate others). In turn, they may attempt to accomplish this goal through extreme pro-environmental expressions.

The aforementioned findings lead to the first two hypotheses: (H1) those who perceive climate change as an urgent issue are more likely to have the goal to educate others about the issue, and (H2) those who have the goal to educate others about climate change are more likely to engage in extreme pro-environmental expression. These hypotheses shape the first pathway of the proposed model: ‘the educator pathway’.

The Moral Reparation Pathway

Weissenbacher's (2022) study also revealed that, when discussing their extreme pro-environmental expressions, participants brought up their virtuous personal pro-environmental behaviour such as recycling and buying solar panels spontaneously, without being asked. While condemning those who contribute to climate change, wanting to educate them and ideally influence them to change their behaviour for the better, the participants seemingly felt a desire to also emphasize that they themselves 'do the right thing' for the environment. This suggests they may be motivated to self-present as morally virtuous, suggesting that the desire or need to affirm one's morality may play a role in motivating extreme pro-environmental expressions. As this motivation has not been studied previously in relation to radical behaviour or extreme expressions specifically, this piqued our interest.

Previous research about the role of morality in collective and radical action has been extensive: morality is generally seen as a key driver for attitudes and behaviour, also more specifically for activism and in the environmental context (Chen, Pillutla, & Yao, 2009; Haidt, 2008; Lakoff, 1996; Shaw et al., 2000). Moreover, attitudes rooted in moral judgment are more likely to be extreme, and perceptions of outgroup members' moral violations have been associated with extreme behaviour (Forsyth, 1980; Mooney & Schuldt, 2008; Skitka, Bauman, & Sargis, 2005; Hoover et al., 2021). However, when exploring the relationship between morality and extreme behaviour, studies have mainly been focused on the perception of *others'* moral violations, as a justification for taking action: "Their behaviour is morally wrong. To express that this is unacceptable, it is justified if I engage in extreme behaviour as a response" (e.g., Pauls et al., 2021; Hoover et al., 2021).

However, Weissenbacher's (2022) study provides a different perspective on the relationship between morality and extreme behaviour. It raises the question whether an additional factor is relevant in the relationship between morality and extreme behaviour,

namely, a component of self-presentation, of publicly reaffirming one's moral virtue. We propose that extreme pro-environmental expressions could be motivated by desire to reaffirm one's morality, by way of demonstrating how important one finds protecting the environment and thereby displaying one's moral virtuousness.

The Role of Guilt and Shame. If the public reaffirmation of morality is indeed a motive that plays a role, what emotions might play a role? We propose that two painful emotions may be involved: guilt and shame. Feelings of guilt and shame can arise from the realization that you have done something conflicting with a relevant personal or normative standard, such as a moral convictions (Tangney & Fischer, 1995). Guilt and shame are aversive emotions, which makes one motivated to alleviate them (Lewis, 1971). Thus, when one finds it morally reprehensible to harm the environment, but engages in behaviour that contributes to climate change, this can lead to feelings of shame and/or guilt. We propose that (publicly) reaffirming one's morality is a way to cope with these feelings; to reduce the pain.

Guilt and shame can both occur after a moral violation, but the focus of the experience, and therefore the behaviour it motivates, is argued to be different (Lewis, 1971). Guilt is argued to mainly emphasize the wrongdoing itself and its consequences for the 'victim', whereas shame is argued to be more focused on the negative implications of the wrongdoing for one's self-concept or for how one is perceived by others (Lewis, 1971). To illustrate this distinction, an example of guilt could be the following; "I am contributing to climate change, and other people/future generations/'the earth' will suffer as a result". An example of shame could be; "I am contributing to climate change, and therefore [other people think] I am a bad person".

With its focus being more on the victim and the wrongdoing itself, guilt seems to motivate behaviour that is aimed at repairing, undoing, or apologizing for the harm that is done (e.g., Hoffman 2000; Iyer et al. 2003; McGarty et al. 2005). However, undoing harm can

be costly. For instance, it is currently hardly possible to avoid harming the environment; one contributes to climate change by simply existing. Therefore, people often opt for indirect methods of alleviating guilt (Branscombe and Miron 2004). For example, studies have revealed that feelings of guilt triggered by reminders of people's own environmentally destructive behaviour lead to increased willingness to blame corporations for harming the environment (Rothschild et al., 2012). However, the tendency to engage in this indirect method of alleviating guilt decreases after responding to the following prompt: "In a few sentences briefly describe something about yourself that makes you feel like a good and decent person." (Rothschild et al., 2012). This suggests that reaffirming one's morality can be a way to cope with guilt.

In general, motivations and behaviours associated with shame seem to be focused on restoring or protecting threatened positive self-views and/or reputation (de Hooge et al., 2011). No previous studies have explored the relationship between shame and moral reaffirmation specifically. However, a study by Marcotte (2017) revealed that engaging in a self-affirmation exercise can reduce feelings of shame. The self-affirmation exercise used in the study consisted of the participants describing why a certain value was important to them and giving examples in which they exhibited this value (Marcotte, 2017). Thus, affirming that one is a good person seemed to be a way to cope with shame. Therefore, it is not unlikely that moral reaffirmation works in a similar way. Additionally, publicly reaffirming one's morality may be a way to deal with reputational concerns, as it is an attempt at persuading others of one's moral virtuousness. Thus, we propose that feelings of shame related to climate change may drive moral reaffirmation, as demonstrating one's moral virtue regarding the environment may be a way to restore one's threatened reputation or self-views.

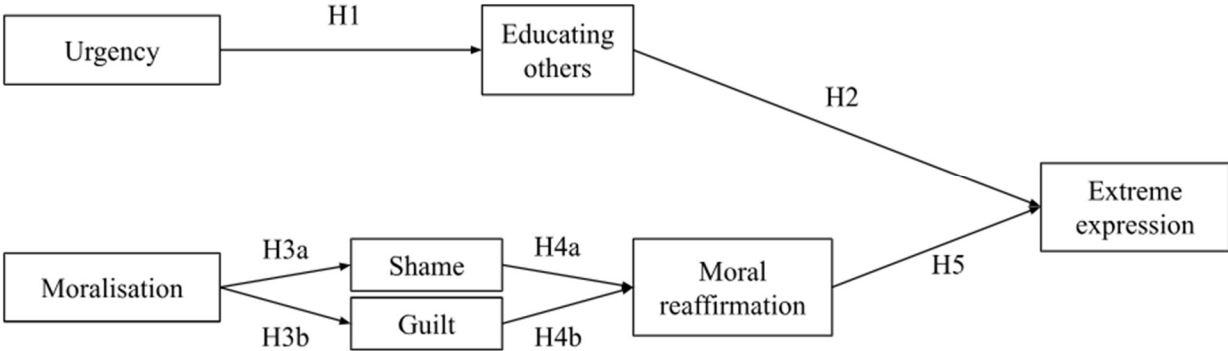
Moralisation. The structure we are adhering to in explaining extreme expressions leads us to question what kind of perception may underlie the feelings of guilt and shame one

may experience regarding climate change. Guilt and shame may be triggered by contributing to climate change when one perceives contributing to climate change to be a violation of morality. Therefore, we suggest that for those who perceive climate change in terms of right and wrong (i.e., moralisation of climate change) it is likely that the very fact of being alive (and therefore using natural resources) may arouse personal feelings of guilt and shame; “Harming the environment is morally wrong, I nevertheless am a living human being who uses up resources and thereby contribute to climate change, therefore I feel guilty/shameful”. Thus, we propose that, if a person moralises climate change, they are more likely to feel guilt and shame related to climate change.

The aforementioned findings lead to the following hypotheses: (H3a/b) those who moralize climate change are more likely to experience shame/guilt related to climate change, (H4a/b) those who experience shame/guilt related to climate change are more likely to have the goal to reaffirm their climate related morality, and (H5) those who have the goal to reaffirm their climate related morals are more likely to engage in extreme pro-environmental expression. These hypotheses shape the second pathway of the proposed model: ‘the moral reparation pathway’. Together, the two proposed pathways form a model of extreme pro-environmental expression. See figure 3 for an overview of the full model, including the corresponding hypotheses.

Figure 3

The full model of extreme pro-environmental expression, including hypotheses.



The present study

The present study investigates the relationship between extreme pro-environmental expression and several perceptions, emotions and motivations. A mixed-method approach was used, combining both quantitative and qualitative data. A questionnaire was administered, to test the proposed model of extreme pro-environmental expression. Furthermore, follow-up interviews were conducted with participants from the survey who indicated they tend to express themselves extremely. These interviews were conducted to explore additional characteristics of online and offline extreme pro-environmental expression, as well as to enable a more in-depth investigation of the potential drivers of extreme expression.

Method

Current study explores extreme pro-environmental expression and its relation to the desire to educate others and to affirm ones morals, experienced guilt and shame related to climate change, and perceptions of climate-related urgency and morality. The study consisted of two phases; the first, correlational phase comprised quantitative data collection with an online survey, the second phase comprised qualitative data collection with a follow-up interview. In the following sections, each phase is discussed in detail.

Phase 1

The first phase of the study consisted of an online survey, in which participants were asked about their opinions on climate policy and the economy, their desire to express themselves on the topic, as well as a number of other variables.

Participants

Only participants categorised as “pro-climate” were included in the current study. Participants were selected based on their answer on a ‘climate policy opinion’ question: “To what extent do you agree with the following statement? To prevent a climate disaster and save our planet, the economy may bleed.”. Response options ranged from 1 (*completely disagree*)

to 5 (*completely agree*). Participants who agreed with the statement were included, and those who disagreed or indicated they neither agreed nor disagreed were excluded. This yielded a pro-climate sample of 576 Dutch participants, aged between 18 and 91 ($M=49$), of which 54% was male.

Participants were recruited online by the research organisation Flycatcher (<https://www.flycatcher.eu>). Flycatcher approached members of their panel via e-mail to participate in the survey. After filling out the survey, panel members received 120 Flycatcher points, which can be exchanged for money in the form of vouchers for stores or donations to charity. Additionally, participants of the survey received a lottery ticket, with which they can participate in a quarterly organised lottery by Flycatcher. Prizes include several vouchers and Flycatcher points.

Materials

The online survey included questions regarding opinions on climate policy, perceived urgency of climate change, morality of climate change, need to express on the topic, as well as motivations for opinion expression (see Appendix A).

Extreme Pro-Environmental Expression. ‘Extreme pro-environmental expression’ was measured by combining the participants’ scores on a ‘need to express’-scale, and participants’ answer on the aforementioned ‘climate policy opinion’ question. Participants’ need to express themselves on the topic was assessed with the following three items, taken from Weissenbacher (2022): “I would not hesitate to share my opinion in the debate regarding climate policy and the economy”, “When I hear the debate on climate policy and the economy, I feel like I have to raise my voice” and “I think it is important to have my say in the public debate on climate policy and the economy”. Answer possibilities ranged from 1 (*completely disagree*) to 5 (*completely agree*), and participants had the option to answer with “do not know”. The three items were grouped together to form a ‘need to express’-scale,

which had a McDonald's Omega of $\omega=.83$. 'Extreme pro-environmental expression' scores were calculated by adding participants' climate policy opinion score to their mean score on the 'need to express'-scale, and dividing by two.

Guilt and Shame. In order to assess participants' experienced guilt and shame with regard to climate change, the following two items were included in the survey: "When I think about the consequences of our way of living for the future of the climate, I feel..." followed by "guilt" and "shame". Again, answer possibilities ranged from 1 (*completely disagree*) to 5 (*completely agree*), and participants had the option to answer with "do not know".

Perceived Urgency. Participants' perceived urgency regarding climate change was assessed with the following two items: "To what extent do you agree with the following statement? When I think about climate change, I feel that this is an extremely urgent problem.", and "When I think about the consequences of our way of living for the future of the climate, I feel a sense of urgency". Again, answer possibilities for both questions ranged from 1 (*completely disagree*) to 5 (*completely agree*), and participants had the option to answer with "do not know". The two items were grouped together to form a scale for perceived climate-related urgency, which had a Cronbach's Alpha of $\alpha=.80$.

Perceived Morality. To assess climate-related morality, participants were asked the extent to which they agreed with the following four statements: "My opinions on this topic are strongly related to my beliefs about right and wrong", "I consider my opinion on this topic to be a moral issue", "There is only one correct opinion in this debate, and that is mine" and "When I think about my opinion in this debate, I think it is immoral to do nothing". Again, answer possibilities for both questions ranged from 1 (*completely disagree*) to 5 (*completely agree*), and participants had the option to answer with "do not know". The four items were grouped together to form a morality scale, which had a McDonald's Omega of $\omega=.70$.

Motivations for Expression. To assess the extent to which participants were

motivated to express their opinions by the desire to educate others about the topic and the desire to show others what side in the debate they are on (i.e., moral reaffirmation), two items were included in the survey. Participants were asked the extent to which they agreed with the following statement “When I express my opinion on this topic, I do this to...”, followed by “educate others” and “show others which side I am on”. Once again, answer possibilities for both questions ranged from 1 (*completely disagree*) to 5 (*completely agree*), and participants had the option to answer with “do not know”.

Procedure

Panel members received an e-mail from Flycatcher in which they were invited to participate in a survey by the University of Groningen about climate change and the economy, which was indicated to have a completion time of around 15 minutes. A link was included in the invitation e-mail, which panel members could click on to start the online survey. After clicking the link, participants were asked to confirm their identity. Thereafter, participants were asked to read an informed consent form (see Appendix A).

After indicating their consent and willingness to participate in the study, participants received some information on (future) climate policy plans in the Netherlands and the EU. Thereafter, participants were able to start the survey, which consisted of questions about opinions, emotions, perceived urgency, morality, identification, collective action tendencies, efficacy beliefs, desire to express and motivations to express with respect to the debate of climate policy and the economy.

To conclude, participants were asked whether they were open to participating in a 20 minute follow-up interview by phone for an additional amount of points. Participants who agreed to participate in an interview were asked to give their phone numbers, as well as choose moments that would suit them to be called. Finally, participants were asked to evaluate the survey in terms of interest in the subject, length, clarity and enjoyability. After

completion of the survey, participants received compensation.

Analysis

To test the hypothesized model, the relationships between extreme pro-environmental expression and urgency, morality, motivation to educate, motivation to affirm morality and guilt and shame were assessed using multiple linear regression.

Phase 2

The second phase of the study consisted of a phone interview, in which a number of participants of the aforementioned survey were asked follow-up questions to the survey. The interviews were aimed to explore additional motivations behind extreme opinion expression, as well as investigate the extent to which the drivers in the proposed model are mentioned in interviews by the participants, and how this compares to the quantitative results.

Participants

The follow-up interviews were conducted by Desan (<https://www.desan.nl/desanresearch/>), a partner company of Flycatcher. Desan approached a selection of the participants who indicated they were open to being interviewed. The selection was based on participants' survey scores on the 'need to express'-scale and two questions about participants' opinions on climate policy and the economy. The first opinion question being the aforementioned 'climate policy opinion' question, and the second being the following: "To what extent do you agree with the following statement? The climate policies of the EU and NL completely destroy our economy.". Answer possibilities ranged from 1 (*completely disagree*) to 5 (*completely agree*).

The desired interview sample included participants who indicated to have a strong opinion (pro-climate or pro-economy), and a relatively high desire to express their opinions on the topic. To achieve this sample, Desan approached participants based on a preference ranking, starting with participants who scored relatively high or low on the opinion questions,

and relatively high on the ‘need to express’-scale, until they reached the desired sample size of 50 participants. An overview of the preference ranks can be found in Appendix B. Of the 50 total interviewees, 30 were categorized as pro-climate and thus included. Participants were aged between 18 and 79 ($M=47$), and 60% were male. For participation in the interview, participants received 450 Flycatcher points.

Materials

The interviews were guided by a semi-structured interview script, which was adapted from Weissenbacher (2022) (see Appendix C). The script included questions such as “What do you think of this discussion? Where do you stand in the debate on climate policy and the economy?” and “Do you express yourself online about climate policy?”, as well as several possible follow-up questions, which could be asked in case of a lack of detailed or elaborate response.

Procedure

The qualitative phase of the research took place about two weeks after the participants filled out the survey. The participants were called by employees of Desan, and asked to participate in an interview by phone of around 20 minutes. An identity check was performed, to ensure that the correct person was being interviewed. Interviewees were reminded of the contents of the survey, and were informed that the interview was being recorded. After participants agreed to participate, they were asked questions on the topic of climate policy and the economy and opinion expression. Finally, participants were asked what their hopes were for the future with respect to climate change and climate policy. The recordings of the interview were transcribed by Desan. The transcriptions were anonymized and sent to our research team. However, the transcriptions we received seemed to be undetailed and summarized, we also did not have access to which exact questions were asked. Therefore, we were not able to analyse the qualitative results in the manner we had initially planned, and

were not able to make additional inferences relevant to the research question. However, to get an indication of what was discussed in the interviews, we did analyse the qualitative results. Transcriptions were analysed in Dutch, though selections of the transcripts were translated to English for presentation in this paper (see Appendix D).

Analysis

To analyse the qualitative interview data, a qualitative content analysis was conducted following the procedure described by Drisko et al. (2015). The transcripts were analysed manually. Due to the scope of the study, no second coder was used. To give an overview of what was discussed in the interviews regarding the variables of the proposed model of extreme pro-environmental expression, as well as gain some insight into how our participants express themselves on the topic of climate policy and the economy, we used a deductive approach to coding the data. We coded for ‘offline expression’, ‘online expression’, ‘urgency’, ‘educating others’, ‘morality’, and ‘emotions’. An overview of the codes can be found in Appendix E.

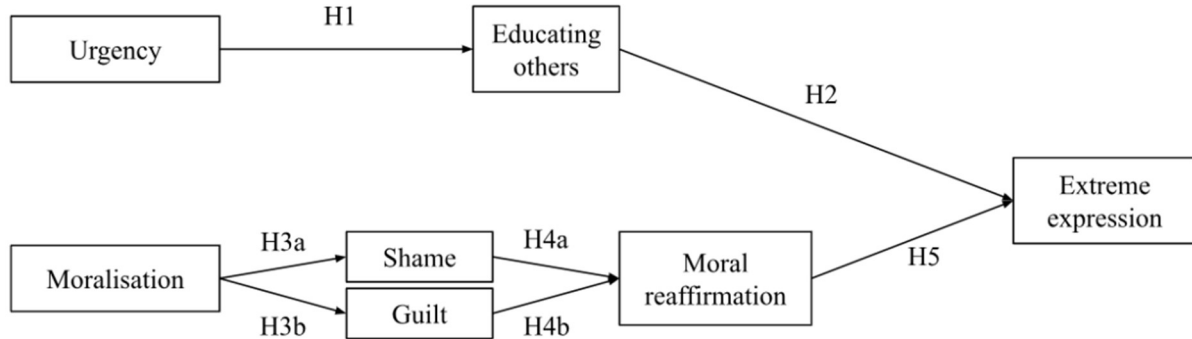
Results

In the present study, we examined participants’ motivations to express themselves extremely on the topic of climate policy. To do so, we conducted a survey in which participants answered questions regarding perceptions and emotions in relation to climate change, as well as motives to express their opinions on the topic. To enhance our comprehension of extreme expression, follow-up interviews were conducted. In the following section, data from the survey will be analysed in order to examine the proposed pathway model of extreme expression and answer our hypotheses. Thereafter, an exploratory analysis will be conducted on the quantitative survey data. Lastly, a general overview of the interviews will be given. The model, including hypotheses corresponding to each path, is displayed in figure 2.

Figure 2

Proposed Model of Extreme Pro-Environmental Expression, Including Hypotheses

Corresponding to Each Path.



Phase 1: The Survey

Descriptive statistics and correlations between the key variables are presented in table

1. The hypothesized model of extreme expression was tested using linear regression pathway analysis on the hypothesized pathways (see figure 3). Additionally, several exploratory analyses were conducted using linear regression.

Table 1

Means, Standard Deviations and Correlations for All Variables

	1.	2.	3.	4.	5.	6.	7.
1. Extreme expression	1						
2. Educating others	.36**	1					
3. Moral reaffirmation	.34**	.19**	1				
4. Shame	.29**	.18**	.17**	1			
5. Guilt	.31**	.19**	.29**	.63**	1		
6. Urgency	.45**	.29**	.27**	.38**	.42**	1	
7. Moralisation	.48**	.29**	.33**	.34**	.33**	.46**	1
<i>M</i>	3.70	3.16	3.62	3.13	2.84	4.08	3.44
<i>SD</i>	0.57	1.07	0.94	1.11	1.12	0.86	0.66

Note. ** $p < .001$ (2-tailed)

Analysing the Pathway Model

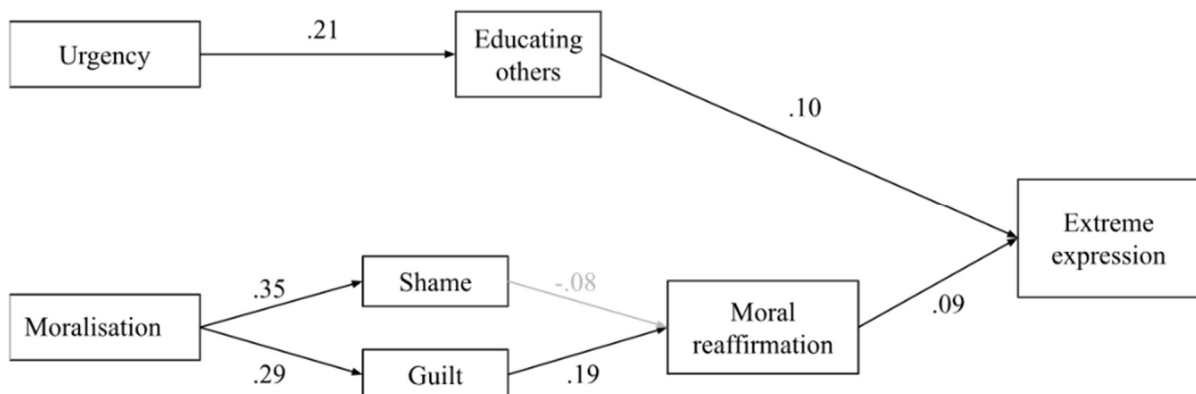
Path analysis revealed that, in line with our first hypothesis, *urgency* significantly predicted the motive *educating others*. Meaning that participants who perceive climate change as an urgent issue are more likely to be motivated to educate others about the topic. Additionally, *educating others* significantly predicted *extreme expression*. As such that participants who are motivated to educate others about climate change and climate policy are more likely to engage in extreme pro-environmental expression. This is in line with our second hypothesis. The addition of *educating others* and *urgency* significantly improved the model's prediction of *extreme expression*. An overview of the linear regression results is displayed in table 2.

Concordant with our hypotheses 3a and 3b, *moralisation* significantly predicted both *guilt* and *shame*. Meaning that participants who perceive climate change and climate policy to be a moral issue are more likely to experience guilt and shame related to climate change. The addition of *moralisation* significantly improved the model's prediction of extreme expression. Additionally, both *guilt* and *shame* significantly predicted *moral reaffirmation*. As such that participants who experience guilt and shame related to climate change are more likely to feel motivated to reaffirm their climate related morality (i.e. show others 'which side they are on'). This is in line with our hypotheses 4a and 4b. The addition of *guilt* and *shame* significantly improved the model's prediction of *extreme expression* at the $\alpha = 0.05$ level. Moreover, concordant with our fifth hypothesis, *moral reaffirmation* significantly predicted *extreme expression*. Meaning that those who are motivated to reaffirm their morality are more likely to engage in extreme expression. The addition of *moral reaffirmation* significantly improved the model's prediction of *extreme expression*.

Table 2*Model Summary of Linear Regression Analysis of the Pathway Model on Extreme Expression*

	Model 1	Model 2	Model 3
Moralisation	.289**	.268**	.211**
Urgency	.191**	.170**	.133**
Shame		.013	.017
Guilt		.051*	.032
Moral reaffirmation			.085**
Educating others			.104**
N	490	486	477
R2	.29	.31	.36
Adjusted R2	.29	.30	.35
F Change	99.16	3.71	20.13
Sig. F Change	< .001	.025	< .001

Note. Model 1. predictors: moralisation, urgency. Model 2. predictors: moralisation, urgency, shame, guilt. Model 3. predictors: moralisation, urgency, shame, guilt, educating others, moral reaffirmation. * $p < .05$, ** $p < .001$ (2-tailed)

Figure 3*Examination of the Proposed Model of Extreme Expression.*

Note. For paths displayed in black, $p < .001$. Non-significant paths are displayed in grey.

Exploratory Analyses

To gain additional insight about the relationships between the variables in the proposed model of extreme expression, we performed an exploratory analysis. Linear regression revealed that *urgency* significantly predicted *moralisation* ($\beta = .46, p < .001$), meaning that participants who perceived climate change as a more urgent problem were significantly more likely to moralise climate change. Urgency explained 21% of variance in moralisation. Additionally, *moralisation* significantly predicted *educating others* ($\beta = .29, p < .001$). As such that those who moralise climate change were significantly more likely to feel motivated to educate others about the topic. *Moralisation* explained 8% of *educating others*. Moreover, *urgency* significantly predicted *guilt* and *shame* (respectively $\beta = .42, p < .001$ and $\beta = .38, p < .001$). Meaning that those who perceived climate change as a more urgent problem were more likely to experience guilt and shame related to climate change. *Urgency* explained 18% of *guilt*, and 14% of *shame*.

Phase 2: The Interviews

We began the interviews by asking the participants what they think about the discussion regarding climate policy and the economy, and where they stand in this discussion. Following this, the participants were asked whether they express themselves about the topic online, and if not, why. Finally, the participants were asked about their hopes for the future with regard to climate policy. The structure of the interview was designed to give more insight into drivers of extreme pro-environmental expression, more specifically, we were interested in which emotions may play a role. However, as mentioned in the methods section, the transcriptions seemed to be summarized and undetailed. Therefore, they lost the nuance that we needed to conduct the analysis we initially planned. Nonetheless, we analysed the transcriptions in order to give an overview of what was discussed in the interviews. We coded for ‘offline expression’, ‘online expression’, ‘urgency’, ‘educating others’, ‘morality’, and

'emotions'. In the following section, we will describe how the interviewees express themselves offline and online on the topic of climate change and climate policy. Thereafter, we will explore what the interviewees expressed regarding the motivations, emotions, and perceptions we adopted in our proposed model of extreme expression.

Offline and Online Expression

All participants indicated in the interviews that they express themselves offline about climate change and climate policy in some way. Additionally, 40% of the participants indicated that they express their opinions on climate change and climate policy online as well. In order to gain insight into the participants' expressions, we will first explore how the interviewees express themselves offline and online about climate change and climate policy, as well as who their audience is.

Offline Expression. The type of offline expression that was most frequently mentioned by the interviewees, was having conversations about climate change and climate policy with personal connections, such as partners, friends, family members, and/or colleagues. Even though nearly all interviewees ($N = 28$) indicated that they talk about climate change and climate policy with personal connections, the participants varied in terms of with whom they have these conversations. Several interviewees indicated that they talk about the subject with people close to them, but not with people they are not as familiar with. For example, one participant mentioned: "With most of my colleagues I have a more superficial connection, and I think the environment is an intense subject so we do not talk about it." (P4). On the other hand, other participants indicated that climate change and climate policy are something they talk about with anybody. For example, one participant mentioned: "I talk about this subject [climate change] with everyone where it comes up or when I can bring it up." (P16). Another participant said: "I talk about the climate with everything and everyone I meet." (P17).

Conflict avoidance. With regard to conversations about climate change with personal connections, a recurring theme was the notion that it can be unpleasant to discuss the topic with people who have different views and opinions. A number of participants indicated that those conversations will either result in a heated discussion or a fight, or will be cut short to avoid such conflict. For example, one interviewee mentioned:

I talk about it [climate change] with friends, and some friends have opinions that are the opposite of my opinions. Most often we decide that it is better to talk about a different subject. We do not fight, but we stop the discussion. [...] I avoid the subject with people who have opposing opinions. I do that because I do not feel like fighting.
(P3)

Another participant said:

We have a few acquaintances who completely deny the climate problems. In that case a conversation is not pleasant. Then I do not have the ability to have such a discussion in a constructive way, and that conversation ends with a lack of understanding from both sides. (P17)

Seven interviewees indicated that they actively avoid discussing climate change with certain people, because of past experiences. For example, one participant said:

I do not talk about it [climate change] with my family. When I do that with my parents in law we have very lengthy discussions and I have given up. After 20 years I no longer devote energy to that. Those discussions escalate. They are very pro-economy and I am very pro-climate and we do not come together. (P4).

In addition to having conversations with people about climate change and climate policy, several other forms of offline expression were mentioned by the participants. For instance, seven interviewees mentioned that they have participated one or more times in a demonstration related to pro-climate ideology. Additional forms of expression that were

mentioned included sending letters about the topic to a newspaper, and submitting petitions to a municipality.

Online Expression. Participants mentioned various online actions they take to express their opinions about climate change and climate policy. For example, seven participants mentioned they respond to others' posts on social media, either when they agree or disagree with the post. For instance, one participant stated: "Sometimes I respond to someone's post on social media when I think the information they shared is incorrect." (P22). Another participant mentioned: "I respond to things I read on Instagram. I respond when there are certain events people want to organise. I respond to people who have the same opinion as I do." (P30).

Other online actions that participants take are sharing posts or articles about climate change and climate policy, responding to surveys, and writing posts on social media. Seven participants mentioned they use social media to share petitions and/or posts, articles and news reports written by other people about climate change and climate policy with their followers. Two participants mentioned that they respond to surveys, polls, questions and petitions online, posted by environmental organizations such as Greenpeace. Three participants indicated that they use social media to write posts about their opinions regarding climate change. For example, one participant said: "I sometimes post on Twitter. [...] Then I post something about electrical bikes. I think people in the city should ride on a regular bike [...]. I think the source of electricity is up for debate." (P2). Social media platforms participants have used include X (Twitter.com), Telegram, LinkedIn, Facebook, YouTube, Instagram and WhatsApp.

Participants who do not express their opinions on climate change and climate policy online mentioned several reasons for this. For example, a number of participants indicated that they are not active on social media in general. Other reasons included lack of time and perceived lack of knowledge on the topic. Most frequently mentioned was the notion that other people on social media are negative and lack nuance. Ten participants mentioned this

perception is why they do not express themselves on social media about the topic. For instance because they are afraid they will receive backlash, or will end up in a discussion that is negative and lacks nuance. For example, participants mentioned: “I do not express myself online, because I am under the impression that there is especially a lot of opponents active on there. And that it does not matter what you say because you will be attacked anyway.” (P6), “I deliberately do not do that [use social media to express opinions on climate change] because social media is a sewage where everybody dumps their garbage and I have no need for that.” (P9), and

I do not express myself on social media. There are so many opinions posted over there that are not nuanced. Then I do not tend to respond nuanced to that. And I actually skip these discussions, because of the opinions that lack nuance. (P8)

Educating Others

The motivation to educate others on the topic of climate change and influence others’ behaviour was mentioned most frequently by the interviewees ($N = 14$) as a motive behind their expressions, both offline and online. This is in line with our prediction that educating others is a significant motive for extreme expression, as well as the survey results. Several participants mentioned that they express their views about climate change and climate policy in order to spread information, make people think about their ideas and way of life and ideally influence others’ opinions and behaviour. For example, one participant said: “I frequently come across people who have very different ideas and then I try to restrain myself but make it clear that they have to be aware of their choices, their way of life.” (P18). With regard to their online expressions, another participant mentioned: “Last weekend I shared an article on Facebook about the melting of polar ice. [...]. I do that more often. I do that because I feel that I can contribute a little bit to awareness that way.” (P19).

Urgency

The notion that climate change is an urgent problem was apparent among a number of interviewees. Thirteen participants brought up the fact that they found climate change to be an urgent issue, directly or more indirectly. Several participants stated that climate policy should be prioritized above economic growth, for example: “Climate policy should be prioritized. When there is no climate policy there will be nothing in the future, so also no economy.” (P10), and “I understand both interests [climate policy and the economy], but I think the climate is the health of the world, of which we have only one, and that should come first.” (P19). This sense of urgency was also mentioned by some interviewees in a more direct manner. For example, when asked where they stand in the debate on climate change and the economy, one participant mentioned: “I think [climate] policies are sometimes still not ambitious enough for what we need to achieve. [...]. Time is running out.” (P6). When asked for their hopes for the future, the same participant said the following: “I hope for a collective sense of urgency.”. Though a perceived urgency of climate change seemed to be present among a number of participants, no participants mentioned urgency as a motivation for expressing about climate change and climate policy.

Morality

Twelve interviewees implied moralisation of climate change, in the sense that they talk about the topic in terms of ‘right’ and ‘wrong’, or perceive certain behaviour, views or opinions related to the topic to be ‘right’ or ‘wrong’. For example, one participant said: “Sometimes I also respond to something that others post on Telegram. When I read that someone’s opinion is incorrect.” (P3). The same participant mentioned:

I want to reach the people who have doubts about the subject or people who have false beliefs. Sometimes I get responses. They are mostly responses from people who disagree with me. Then I shake my head. Sometimes I respond. I do not make a long discussion of it. I try to expose that somebody is blind for facts. (P3)

Another participant said: “I am not into convincing others that I am right, but I want to inspire them, show that things can be done differently.” (P19). Thus, it seems that a selection of the interviewees may perceive climate change in moral terms (i.e. moralisation). For certain participants, as exemplified in the previous quote, this moralisation seemed to be a driver of expression. This is in line with our predictions, as well as the survey results.

Moral Reaffirmation. No participants mentioned directly that they are motivated to ‘show others they are on the right side’ with regard to climate change or climate policy, though the survey data did indicate moral reaffirmation to be a significant predictor of extreme expression. However, three interviewees said that they express themselves about climate change or climate policy because they want others to know what their opinion about the topic is, without mentioning a specific reason as to why. For example, two participants said: “I bring it [climate change] up spontaneously and send those letters [to a newspaper] because I want to let others know what my opinion is.” (P16), and “I like it [post on social media] because I want to show what I think [...]” (P26). This may be to show others they are morally right, but this is not something that we can infer from the interviews. However, thirteen interviewees brought up their personal virtuous behaviours with regard to the environment, without being asked. They mentioned engaging in behaviours such as recycling, cycling instead of using a car and trying to reduce their energy consumption. For example, one participant mentioned:

I do not actively participate in protests like extinction rebellion. [...] I am involved with it [climate change] on a different level now. For example, I want to take it into account in my daily life. I drive an electric car and frequently use public transportation. And my wife and I limit our use of plastic at home. (P19)

These findings imply a desire to reaffirm morality in relation to climate change.

Emotions

With regard to the moral emotions, no interviewees mentioned experiencing guilt and/or shame in relation to climate change. However, of the 30 interview participants, 17 indicated in the survey that they experience shame in relation to climate change, and 16 indicated that they experience guilt. Thus, though more than half of the interviewees seem to experience guilt and shame, none brought it up in the interviews. Moreover, emotions in general were brought up sparingly in the interviews. Five participants did mention emotions that they experience in relation to climate change, including frustration, anger and worry. For example, one participant said:

I do not confront them [people with different views]. I do not do this because this topic makes me very emotional and that is not beneficial for the discussion. That emotion is frustration and behind that is anger because people do not take it seriously even though it has got to do with the future of all of us. (P6).

Discussion

The present study was aimed at exploring two pathways which may play a role in driving extreme expressions, that have not been studied previously. A questionnaire was administered in order to test the proposed model. The results of the questionnaire generally support the proposed model. All relationships within the model were supported by the data, except for the relationship between shame and moral reaffirmation (but see below). In addition to the quantitative data collected with the survey, qualitative data was collected by conducting follow-up interviews. The interviews were conducted in order to explore additional characteristics of extreme expression, as well as explore the extent to which certain emotions drive extreme expression. However, the transcriptions of the interviews were undetailed, and hence lost the nuance we needed for our analysis. As a result, we were not able to infer any additional insights about what emotions drive extreme expressions. Therefore, we will not go into detail regarding the qualitative part of the research. However,

some general observations regarding extreme expressions resulted from the interviews, which will be discussed in the following sections. Thereafter, the quantitative results will be discussed. After which, we will explore several limitations of the current study, as well as some recommendations for future research.

All participants indicated in the interviews that they express themselves offline about climate change and climate policy in some way. This is not surprising, as we selected the interview participants based on the extent to which they stated to feel the need to express themselves about the topic in the survey. Nearly all interviewees indicated that they talk about climate change and climate policy with personal connections, such as partners, friends, family members, and/or colleagues. With regard to online expression, more than half of the interviewees (60%) indicated that they do not express themselves online about the topic. This is interesting, considering they all participated in our online survey. The most frequently mentioned reason for avoiding online expression about climate change and climate policy was the notion that other people on social media are negative and lack nuance. For example, one participant mentioned: “I do not express myself online, because I am under the impression that there is especially a lot of opponents active on there. And that it does not matter what you say because you will be attacked anyway.” (P6). This indicates a level of conflict avoidance.

A tendency to avoid conflict also seemed to be present among the interviewees when discussing their offline expressions. With regard to conversations about climate change with personal connections, a number of interviewees mentioned that those conversations will either result in a heated discussion or a fight, or will be cut short or even avoided completely to avoid such conflict. For example, one participant said:

I do not talk about it [climate change] with my family. When I do that with my parents in law we have very lengthy discussions and I have given up. After 20 years I no longer devote energy to that. Those discussions escalate. They are very pro-economy

and I am very pro-climate and we do not come together. (P4).

Thus, even though people with extreme opinions may stereotypically be seen as confrontational, these findings indicate that this is not always the case.

As mentioned previously, we could not infer any relevant new insights from the interviews regarding the aim of our study. However, the qualitative part of our research did seem to replicate the results found by Weissenbacher (2022). As such that we also found that the motivation to educate others on the topic of climate change and influence others' behaviour was mentioned most frequently by the interviewees as a motive behind their expressions, both offline and online. Additionally, we found that participants were eager to tell the interviewer about their personal pro-environmental behaviours, without being asked specifically. Thus, the interviews somewhat supported our proposed educator- and moral reparation pathways. In doing so, we were able to replicate Weissenbacher's (2022) results among a larger sample size.

Predictors of Extreme Expressions

Our results indicated that the full proposed model of extreme expression explains 36% variance of extreme pro-environmental expression. This suggests that the drivers we included in the model play a significant role in explaining extreme expressions. In the following sections, we will explore the quantitative results of our study, and the extent to which they support the two pathways we proposed, in more detail.

The Educator Pathway

The first pathway of our hypothesized model states that those who perceive climate change as an urgent issue are more likely to have the goal to educate others about the issue, and in turn are more likely to engage in extreme pro-environmental expression to achieve this goal. The results of our survey were concordant with these hypotheses. As such, they are in line with previous research regarding drivers of extreme expression by Weissenbacher (2022),

which indicated that a desire to educate others about climate change is an important driver for extreme expression, and that a sense of urgency was the main driver of participants' expressions. The present study extends this research by providing solid quantitative evidence for these findings, among a large sample size. Additionally, whereas Weissenbacher (2022) revealed urgency and the desire to educate others as separate drivers of extreme expression, the current study indicates these drivers may be related to each other in the sense that those that perceive climate change as more urgent are more likely to feel the desire to 'spread the word'. Perceived urgency and the goal to educate others have not been studied in relation to extreme behaviour or extreme expressions specifically. Our results indicate that in future research on extreme behaviour, these drivers should be taken into consideration.

The Moral Reparation Pathway

The second pathway of our hypothesized model states that extreme pro-environmental expression is motivated by the desire to reaffirm one's morality, which can be driven by feelings of shame and guilt related to climate change, which in turn are driven by moralisation of climate change. The results generally support this proposed pathway, although in the complete model the relationship between shame and moral reaffirmation ended up being nonsignificant. The fact that the relationship between shame and moral reaffirmation was not significant, may be explained by statistical suppression. Shame and guilt had a relatively high correlation ($r = .63$). Because guilt had a stronger relationship with moral reaffirmation than shame, this may have caused suppression of the effect of shame on moral reaffirmation.

Taking this suppression into account, our results demonstrate that two highly personal and intimate emotions, which stem from personal conscience functions related to a sense of one's own perceived moral violations or inadequacies, are involved in the desire to demonstrate to others that one is a morally virtuous person, which in turn is related to intentions to display extreme behaviour. It is important to note that this points to a role of

morality that is markedly different from prior research, which has mostly focused on radical and extreme behaviour being the result of moral emotions evoked by *others'* moral violations.

Limitations and Future Research

The first limitation of current study is the fact that it is merely a correlational study. Therefore, no inferences about causality can be made. Additionally, the study does not yet provide a complete picture of what drives extreme expression, as drivers found in previous studies are not included in the study. Current study indicated the relevance of two additional factors which had not been studied yet. In future research on extreme behaviour, these factors should be taken into consideration and possibly be studied in combination with previously established drivers. Lastly, and most prominently, the qualitative part of current study did not provide any additional insights. The interviews were aimed at giving insight into which emotions may drive extreme expressions. However, the transcripts we were provided with by the research company that conducted the interviews seemed to be summarized and incomplete, and did not give insight into non-verbal communication (hesitating, intonations, etc.), or which exact questions were being asked. As such, we could not infer anything relevant to our research question from the qualitative part of our study.

Conclusion

The current study aimed to gain additional understanding of what drives people to express their extreme pro-environmental views and opinions. To do so, we proposed a model consisting of two relatively novel motivational pathways leading to extreme expression. The main objective of current research was to test whether these two pathways may play a role in driving extreme expressions. The first hypothesized pathway states that those who perceive climate change as an urgent issue, may have the goal to 'spread the word'; to educate others about the issue. In turn, those who have the desire to educate others about climate change, are more likely to engage in extreme pro-environmental expression to achieve this goal. The

results of our survey are in line with this pathway. As both perceived urgency and the goal to educate others have not been explored prior in relation to extreme behaviour or extreme expression, they should be taken into consideration in future research. The second hypothesized pathway states that extreme pro-environmental expression is motivated by the desire to reaffirm one's morality, which can be driven by feelings of shame and guilt related to climate change, which in turn are driven by moralisation of climate change. The results of our survey are also generally in line with this pathway. Prior research has mostly focused on radical and extreme behaviour being the result of moral emotions evoked by *others'* moral violations; an attempt to scrutinize others, perhaps in order to achieve a moral end state, a better world. However, our findings provide a new perspective. Namely, our findings suggest that extreme behaviour may also be a way to cope with the painful consequences of realizing one's own immorality.

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Appendix A

Questionnaire and Informed Consent

Vanwege kwaliteitsdoeleinden stellen we u de volgende vraag (info-button: Wij stellen u deze vraag om er zeker van te zijn dat degene die de vragenlijst invult ook daadwerkelijk degene is die wij uitgenodigd hebben. Soms gebeurt het dat per ongeluk iemand anders in het huishouden de vragenlijst invult. Door deze controlevraag voorkomen we dat we bijvoorbeeld denken dat een vragenlijst door een man is ingevuld, terwijl deze door een vrouw is ingevuld en kunnen we een hogere kwaliteit van de resultaten garanderen).

Deze vragenlijst is bedoeld voor [naam panellid]. Bent u deze persoon?

- ja
- nee

Informatie over het onderzoek

Waarom krijg ik deze informatie?

Wij onderzoeken hoe mensen aankijken tegen de klimaatmaatregelen en de gevolgen voor de economie. Wij vragen mensen hierover over hun mening om beter inzicht te krijgen hoe mensen hierover denken. Vera Weissenbacher, Tom Postmes en Maaïke van der Sluijs (Master Student) van de Rijksuniversiteit Groningen (RUG), faculteit gedrag- en maatschappijwetenschappen, voeren dit onderzoek uit.

Moet ik meedoen aan dit onderzoek?

Meedoen aan het onderzoek is vrijwillig. Wel is uw toestemming nodig. Lees deze informatie daarom goed door. Stel al uw vragen, bijvoorbeeld omdat u iets niet begrijpt. Hiervoor kunt u een e-mail sturen naar v.i.weissenbacher@rug.nl of t.postmes@rug.nl. Pas daarna besluit u of

u wilt meedoen. Als u besluit om niet mee te doen, hoeft u niet uit te leggen waarom en zal dit geen negatieve gevolgen voor u hebben. Dit recht geldt op elk moment, dus ook nadat u hebt toegestemd in deelname aan het onderzoek.

Waarom dit onderzoek?

Wij onderzoeken hoe mensen aankijken tegen de klimaatmaatregelen en de gevolgen voor de economie.

Wat vragen we van u tijdens het onderzoek?

- Na akkoord te gaan met de informatie en het ondertekenen van de geïnformeerde toestemming, zal een online vragenlijst plaatsvinden.
- Deelname aan dit onderzoek is vrijwillig. U kunt zonder opgave van reden op elk moment stoppen.
- We vragen uw mening over klimaatmaatregelen en de economie.
- Er zijn geen foute antwoorden en u hoeft niet na te denken over eventuele negatieve gevolgen voor uw antwoorden. Beantwoord de vragen in de vragenlijst op basis van uw eigen mening.
- Het onderzoek zal ongeveer 15 minuten van uw tijd in beslag nemen.
- Als u aan het einde van de vragenlijst wilt deelnemen aan een aanvullend interview over het onderwerp, kunt u uw naam en telefoonnummer achterlaten.
- Dit onderzoek is deel van een Masterscriptie.

Wat zijn de consequenties voor uw deelname?

- U krijgt compensatie voor deelname aan dit onderzoek. Dit is geregeld door Flycatcher.

- Dit onderzoek helpt ons een beter beeld te krijgen over dit onderwerp, en kan richting geven voor vervolgonderzoek over meningsuiting.

Hoe gaan we met uw data om?

- De data van dit onderzoeksproject verzamelen we om meer inzicht te krijgen in de mening van mensen over klimaatbeleid en economie.
- Uw data wordt geanonimiseerd en digitaal bewaard voor tenminste 10 jaar vanaf de publicatiedatum, in lijn met de data bescherming protocollen van de RUG. De data bestaat uit verwerkte en geanalyseerde data. De data wordt verwerkt en opgeslagen door bovengenoemde onderzoekers.
- Als u besluit uw naam en telefoonnummer met ons te delen voor het interview, zal Flycatcher dit opslaan en gebruiken om contact met u op te nemen voor het interview. Onderzoekers van de RUG hebben nooit inzicht in deze data.
- Alle data worden bewaard op beveiligde harde schijven in beheer van de RUG. Enkel onderzoekers van dit team hebben toegang tot de data.

Wat moet u nog meer weten?

- U kunt altijd vragen stellen over het onderzoek: nu, tijdens en na afloop van het onderzoek. Dit kan door een van de betrokken onderzoekers te e-mailen (v.i.weissenbacher@rug.nl of t.postmes@rug.nl.) Na afloop van het onderzoek, als Vera Weissenbacher niet langer gelieerd is aan de RUG, kunt u uw vragen stellen aan anderen van het onderzoeksteam, de faculteit gedrag- en maatschappijwetenschappen, of een van de afdelingen die hierna benoemd worden.

- Heeft u zorgen of vragen over uw rechten als onderzoeksdeelnemer of over de uitvoering van het onderzoek? Dan kunt u ook de ethische commissie van de faculteit gedrag- en maatschappijwetenschappen benaderen: ec-bss@rug.nl. Heeft u zorgen of vragen over de behandeling van uw persoonlijke data? Dan kunt u terecht bij de onderzoeks data manager van de RUG: privacy@rug.nl

Geïnformeerde Instemming

- Ik heb de informatie over het onderzoek gelezen. Ik heb voldoende ruimte gehad om vragen te stellen over het onderzoek
- Ik begrijp waar het onderzoek over gaat, en wat van me gevraagd wordt, en welke consequenties er voor mij zijn als deelnemer, hoe mijn data wordt behandeld, en welke rechten ik als deelnemer heb.
- Ik begrijp dat mijn deelname geheel vrijwillig is. Ik kies er zelf voor om deel te nemen aan dit onderzoek. Ik weet dat ik op elk moment met dit onderzoek kan stoppen, zonder uit te hoeven leggen waarom ik stop. Als ik stop zijn daar voor mij geen negatieve gevolgen aan verbonden.

Door verder te gaan naar de volgende pagina, bevestig ik dat ik de informatie heb gelezen en geef ik toestemming voor deelname aan het onderzoek.

ja, ik geef mijn toestemming en wil doorgaan.

nee, ik geef geen toestemming en ga niet verder door met het onderzoek.

Dit onderzoek gaat over klimaatverandering. Doordat er steeds meer broeikasgassen in de lucht komen, stijgt de temperatuur en warmt de aarde op. Dit noemt men klimaatverandering. In 2016 heeft de Europese Unie (EU) het klimaatakkoord van Parijs ondertekend. Om de doelen van het klimaatakkoord te halen, is in de EU afgesproken dat de lidstaten in 2030 55% minder broeikasgassen uitstoten. In 2050 wil de EU klimaatneutraal zijn.

Om Nederland te beschermen tegen de gevolgen van klimaatverandering, neemt de overheid maatregelen. In het coalitieakkoord 2021-2025 zijn daarom onder andere de volgende afspraken gemaakt:

- Om uiterlijk in 2050 klimaatneutraal te zijn, scherpt het kabinet het doel voor 2030 aan tot tenminste 55% CO₂-reductie. Om dit doel ook zeker te halen, richt het kabinet het beleid op 60% in 2030.
- Er komt een klimaat- en transitiefonds van €35 miljard voor de komende 10 jaar.
- Er komt een minister voor Klimaat en Energie die regie voert over het beleid en het klimaatfonds.
- Er komt een langjarig Nationaal Isolatieprogramma met commitment en middelen tot ten minste 2030.

(Bron: <https://www.rijksoverheid.nl/onderwerpen/klimaatverandering/klimaatbeleid>)

De volgende stellingen en vragen gaan over klimaatverandering en over het klimaatbeleid van de EU en NL.

In hoeverre bent u het eens of oneens met de volgende stelling?

- *Om een klimaatramp te voorkomen en onze planeet te redden, mag de economie bloeden.*

helemaal mee oneens, mee oneens, niet mee eens en niet mee oneens, mee eens, helemaal mee eens, weet niet

- *Als ik denk aan de gevolgen van onze manier van leven voor de toekomst van het klimaat, voel ik*
 - *schaamte*
 - *een schuldgevoel*
 - *urgentie (het gevoel: dit is extreem dringend)*

helemaal niet, een beetje, enigszins, veel, erg veel, weet ik niet/n.v.t.

De volgende stellingen gaan over uw mening in het debat over klimaatbeleid en de economie.

In hoeverre bent u het eens of oneens met de volgende stellingen?

- *Als ik denk aan klimaatverandering, heb ik het gevoel dat dit een extreem dringend probleem is.*

helemaal mee oneens, mee oneens, niet mee eens en niet mee oneens, mee eens, helemaal mee eens, weet niet

Er volgen nu enkele stellingen over uw mening over klimaatverandering en het klimaatbeleid.

In hoeverre bent u het eens of oneens met de volgende stellingen?

- *Mijn mening over dit onderwerp is sterk verbonden met mijn overtuigingen over “goed” en “kwaad”.*
- *Mijn mening over dit onderwerp is voor mij een morele kwestie. (info-button: Een morele kwestie gaat over wat goed en slecht is volgens uw normen en waarden.)*
- *Er is maar één juist standpunt in dit debat, en dat is het mijne.*
- *Als ik denk aan mijn mening over dit onderwerp, vind ik het immoreel om niks te doen. (info-button: immoreel betekent dat het in strijd is met wat volgens u goed is).*

helemaal mee oneens, mee oneens, niet mee eens en niet mee oneens, mee eens, helemaal mee eens, weet niet

In hoeverre bent u het eens of oneens met de volgende stellingen?

- *Ik zou niet aarzelen mijn mening te geven in het debat over klimaatbeleid en de economie.*
- *Als ik het debat over klimaatbeleid en de economie hoor, heb ik het gevoel dat ik mijn stem moet verheffen.*
- *Ik vind het belangrijk om mijn zegje te doen in het publieke debat over klimaatbeleid en de economie.*

helemaal mee oneens, mee oneens, niet mee eens en niet mee oneens, mee eens, helemaal mee eens, weet niet

In hoeverre bent u het eens of oneens met de volgende stellingen?

- *Als ik me uitspreek over dit onderwerp, doe ik dit om...*
 - *... anderen iets te leren.*
 - *... anderen te laten zien aan welke kant ik sta.*

helemaal mee oneens, mee oneens, niet mee eens en niet mee oneens, mee eens, helemaal mee eens, weet niet

De onderzoeker heeft mogelijk nog wat aanvullende vragen naar aanleiding van dit onderzoek. Wilt u deelnemen aan een telefonisch interview naar aanleiding van de resultaten van dit onderzoek? Het telefonisch interview zal ongeveer 20 minuten in beslag nemen en voor deelname aan het interview ontvangt u 450 punten. De interviews vinden plaats vanaf 23 februari.

Het interview wordt uitgevoerd door ons partnerbureau Desan. Indien u hieronder aangeeft dat u wilt deelnemen aan het onderzoek, gaat u ermee akkoord dat wij uw naam en telefoonnummer doorgeven aan Desan, zodat zij contact met u op kunnen nemen voor het interview. Desan gebruikt uw gegevens alleen voor dit onderzoek en na afloop van het onderzoek worden uw gegevens verwijderd. Uw antwoorden op het interview worden gekoppeld aan uw antwoorden van deze vragenlijst.

- ja, ik wil deelnemen aan het telefonisch interview, mijn telefoonnummer is: ...
- nee, ik wil niet deelnemen

U heeft aangegeven te willen deelnemen aan het interview. Op welke dag(en) wordt u het liefst benaderd voor het interview? (meerdere antwoorden mogelijk)

- maandagochtend (tussen 8:45 en 12:45 uur)
- etc.
- anders, namelijk: ...
- geen voorkeur [unieke antwoordoptie, overige opties grijs]

Graag willen wij weten wat u van deze vragenlijst vond. Uw mening kan ons helpen

toekomstige vragenlijsten verder te verbeteren.

Als u deze vraag wilt overslaan, klikt u gewoon op Volgende om door te gaan naar het einde van de vragenlijst.

Wat vond u van de vragenlijst?

interessant onderwerp	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	oninteressant onderwerp
te kort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	te lang
duidelijke vragen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	onduidelijke vragen
prettig om in te vullen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	onprettig om in te vullen

Indien u nog opmerkingen heeft naar aanleiding van deze vragenlijst, kunt u daarvoor de ruimte hieronder gebruiken.

<groot tekstvak>

Controleer onderstaande gegevens. Indien de gegevens niet meer correct zijn wordt u na het versturen van de vragenlijst automatisch doorgeleid naar een pagina waar u deze kunt aanpassen.

[paspoortje invoegen]

Dit is het einde van de vragenlijst.

Hartelijk dank voor uw medewerking!

Klik op Volgende om uw antwoorden te versturen.

Appendix B

Interview Participants – Preference Ranking

Table B1

Opinion and Expression Categories and Corresponding ‘Opinion’ and ‘Expression’ Scores

	Opinion (x)	Expression (y)
0	$2 \leq x \leq 3$	$y < 3$
1	$1 < x \leq 1.5$ and $3.5 \leq x \leq 4$	$3 \leq y < 4$
2	$x = 1$ and $x \geq 4.5$	$y \geq 4$

Note Opinion scores are participants’ mean scores on the pro-climate and pro-economy questions, with pro-climate scores reverse coded. Expression scores are participants’ mean score on the ‘need to express’-scale.

Table B2

Preference Rankings and Corresponding Opinion and Expression Categories

	Opinion category	Expression category
1	2	2
2	1	2
3	2	1
4	1	1
5	0	2
6	0	1

7	2	0
8	1	0
9	0	0

Note Desan contacted participants based on these ranks, starting with those in rank 1, until they reached the desired sample size of 50 interviewees.

Appendix C

Interview Script

Er is veel te doen over het klimaatbeleid en de gevolgen ervan voor de economie. Na het klimaatakkoord van Parijs heeft de Nederlandse regering een klimaatplan opgesteld om klimaatverandering tegen te gaan. Voor de huidige regering is het milieubeleid een topprioriteit. Er is ondertussen een voortdurende discussie over de impact die dit klimaatbeleid zal hebben op de economie. U beantwoordde daar in de vragenlijst al wat vragen over. Vandaag willen we hier graag met u over doorpraten.

- Om te beginnen de vraag: Wat vindt u eigenlijk van deze discussie? Waar staat u zelf als het om klimaatbeleid en de economie gaat?

[Hier ruimte voor direct antwoord respondent]

- Eventuele vervolgvragen, bij gebrek aan (gedetailleerd) antwoord:

A. Waarom vindt u dat?

B. Wat vind je ervan als mensen er anders over denken?

- Andere mensen doen ook ... (zie hieronder; wat nog niet is besproken). U ook?

A. Online reacties over klimaatbeleid (Twitter, websites met filmpjes etc.)

i. Welk medium of welke media?

ii. Liken, delen met specifieke vrienden, delen op eigen tijdlijn, reageren, zelf posts schrijven?

iii. **Wat wilt u hiermee bereiken?**

- iv. Wie is uw doelgroep?
- v. Waarom deze doelgroep?
- vi. Voor wie wilt u dit bereiken? (zelf, solidariteit met bewoners, milieu, etc)
- vii. Heeft dit ook een relatie met uw offline actiegedrag?
(ondersteunend, aanvullend/complementair, vervangend etc).
- viii. Indien u online actief bent: Wat is uw drijfveer om online actief te zijn m.b.t. het klimaatbeleid? Hoe verhoudt dat zich tot uw drijfveer om offline actief te zijn (indien dit het geval is)?

· Wat hoopt/wenst u voor de toekomst?

Appendix D

Translation of Quotes Used

Table D1

Original Quotes and Translation used, sorted by Participant Number

Participant	Original Quote	Translation
P2	Ik zet wel eens wat op Twitter. [...]. Ik zet er dan iets op over de elektrische fiets. Ik vind dat de mensen in de stad op een gewone fiets zouden moeten rijden [...]. De herkomst van de stroom staat voor mijn gevoel ter discussie.	I sometimes post on Twitter. [...]. Then I post something about electrical bikes. I think people in the city should ride on a regular bike [...]. I think the source of electricity is up for debate.
P3	Ik wil de mensen bereiken die over het onderwerp twijfelen of mensen die met onjuiste overtuigingen zitten. Ik krijg wel eens reacties terug. Het zijn overwegend reacties van mensen die het niet met mij eens zijn. Dan schud ik mijn hoofd. Ik reageer soms terug. Ik maak er geen lange discussies van. Ik probeer bloot te leggen dat iemand blind is voor feiten.	I want to reach the people who have doubts about the subject or people who have false beliefs. Sometimes I get responses. They are mostly responses from people who disagree with me. Then I shake my head. Sometimes I respond. I do not make a long discussion of it. I try to expose that somebody is blind for facts.
P3	Ik reageer zelf ook wel eens op iets wat anderen op Telegram zetten. Als ik lees dat iemands mening echt	Sometimes I also respond to something that others post on Telegram. When I read that someone's

- onjuist is. opinion is incorrect.
- P3 Ik praat erover met vrienden en sommige vrienden staan met hun mening lijnrecht tegenover mijn mening. Meestal besluiten we dan dat we het maar beter over een ander onderwerp moeten gaan hebben. We hebben geen ruzie, maar stoppen dan met de discussie. [...] Ik ga het gesprek met de mensen die een tegenovergestelde mening hebben uit de weg. Dat doe ik omdat ik geen zin heb in ruzie. I talk about it [climate change] with friends, and some friends have opinions that are the opposite of my opinions. Most often we decide that it is better to talk about a different subject. We do not fight, but we stop the discussion. [...] I avoid the subject with people who have opposing opinions. I do that because I do not feel like fighting.
- P4 Ik praat er niet met mijn familie over. Als ik het bij mijn schoonouders doe hebben we ellelange discussies en dat heb ik opgegeven. We kunnen elkaar niet overtuigen. Na 20 jaar steek ik daar geen energie meer in. Die discussies escaleren. Zij zijn heel erg pro economie en ik ben heel erg pro milieu en we komen niet tot elkaar. I do not talk about it [climate change] with my family. When I do that with my parents in law we have very lengthy discussions and I have given up. After 20 years I no longer devote energy to that. Those discussions escalate. They are very pro-economy and I am very pro-climate and we do not come together.
- P4 En met de meeste collega's heb ik een meer oppervlakkige band en ik vind het milieu een intensief onderwerp en With most of my colleagues I have a more superficial connection, and I think the environment is an intense

	daar hebben we het dan niet over.	subject so we do not talk about it.
P6	Ik vind dat het beleid soms nog niet ambitieus genoeg is voor wat we moeten bereiken. [...]. De tijd dringt gewoon heel erg.	I think [climate] policies are sometimes still not ambitious enough for what we need to achieve. [...]. Time is running out.
P6	Dan ga ik niet de confrontatie aan. Dat doe ik niet omdat ik van dit thema erg emotioneel word en dat is niet bevorderlijk voor de discussie. Die emotie is frustratie en dan vlak daarachter aan is het boosheid dat het door mensen niet serieus genomen wordt terwijl het wel met de toekomst van ons allemaal te maken heeft.	I do not confront them [people with different views]. I do not do this because this topic makes me very emotional and that is not beneficial for the discussion. That emotion is frustration and behind that is anger because people do not take it seriously even though it has got to do with the future of all of us.
P6	Ik uit me niet online omdat ik de indruk heb dat daar juist de felle tegenstanders heel actief zijn. En dat het niet uitmaakt wat je zegt omdat er dan toch finaal de aanval op je wordt geopend.	I do not express myself online, because I am under the impression that there is especially a lot of opponents active on there. And that it does not matter what you say because you will be attacked anyway.
P6	En ik hoop op een gezamenlijk gevoel van urgentie.	I hope for a collective sense of urgency.
P8	Ik uit mij niet op social media. Er worden daar zoveel ongenueanceerde meningen neergezet. Ik heb dan niet	I do not express myself on social media. There are so many opinions posted over there that are not nuanced.

- de neiging daar genuanceerd op te reageren. En ik sla deze discussies eigenlijk over, vanwege die ongenueanceerde meningen.
- P9 Dat doe ik best niet omdat de social media een riool is waar iedereen zijn rotzooi op loost en daar heb ik helemaal geen behoefte aan.
- P10 Het klimaatbeleid moet prioriteit hebben. Als je geen klimaatbeleid voert is er straks niks meer, dus ook geen economie.
- P13 Andere mensen hebben meestal wel dezelfde mening als ik (min of meer) maar ze leven daar niet voldoende naar.
- P16 Ik praat met iedereen over dit thema waar het ter sprake komt of waar ik het ter sprake kan brengen. Ik stuur ook ingezonden brieven naar de Volkskrant en die zijn soms ook geplaatst.
- P16 Ik breng het spontaan ter sprake en stuur die brieven omdat ik anderen wil
- Then I do not tend to respond nuanced to that. And I actually skip these discussions, because of the opinions that lack nuance.
- I deliberately do not do that [use social media to express opinions on climate change] because social media is a sewage where everybody dumps their garbage and I have no need for that.
- Climate policy should be prioritized. When there is no climate policy there will be nothing in the future, so also no economy.
- Other people usually have the same opinion as I do, but they do not live by it enough.
- I talk about this subject [climate change] with everyone where it comes up or when I can bring it up.
- I bring it [climate change] up spontaneously and send those letters

- laten weten wat mijn mening is. because I want to let others know what my opinion is.
- P17 Ik praat met alles en iedereen die ik ontmoet over het klimaat. I talk about the climate with everything and everyone I meet.
- P17 We hebben een paar kennissen die de klimaatproblematiek faliekant ontkennen. Zo'n gesprek is dan niet plezierig. Dan ontbreekt mij de vaardigheid om zo'n gesprek constructief te voeren, en dan eindigt zo'n gesprek met onbegrip over en weer. We have a few acquaintances who completely deny the climate problems. In that case a conversation is not pleasant. Then I do not have the ability to have such a discussion in a constructive way, and that conversation ends with a lack of understanding from both sides.
- P18 Ik kom vrij regelmatig mensen tegen die heel anders denken dan probeer ik me in te houden maar wel duidelijk te maken dat ze bewust moeten worden van hun keuzes, hun leefwijze. I frequently come across people who have very different ideas and then I try to restrain myself but make it clear that they have to be aware of their choices, their way of life.
- P19 Ik snap beide belangen, maar ik vind dat klimaat de gezondheid is van de wereld waar we er maar één van hebben en dat dat voorrang heeft. I understand both interests [climate policy and the economy], but I think the climate is the health of the world, of which we have only one, and that should come first.
- P19 Ik ben er niet van om iemand van mijn gelijk te overtuigen, maar ik wil ze I am not into convincing others that I am right, but I want to inspire them,

	wel inspireren, dus laten zien dat het ook anders kan.	show that things can be done differently.
P19	Ik heb het afgelopen weekend een artikel op Facebook gedeeld wat gaat over het smelten van het poolijs. [...]. Dat doe ik wel vaker. Ik doe dat omdat ik vind dat ik zo een stukje kan bijdragen aan bewustwording.	Last weekend I shared an article on Facebook about the melting of polar ice. [...]. I do that more often. I do that because I feel that I can contribute a little bit to awareness that way.
P19	Ik neem niet actief deel aan protesten, zoals extinction rebellion. [...] Ik ben er nu op een ander niveau mee bezig. Ik wil dit nu bijvoorbeeld in mijn dagelijks gebruik doen. Ik rijd een elektrische auto en gebruik het openbaar vervoer vaak. En mijn vrouw en ik gebruiken zo min mogelijk plastic thuis.	I do not actively participate in protests like extinction rebellion. [...] I am involved with it [climate change] on a different level now. For example, I want to take it into account in my daily life. I drive an electric car and frequently use public transportation. And my wife and I limit our use of plastic at home.
P22	Ik reageer weleens op een post van iemand op sociaal media wanneer volgens mij de gegeven informatie niet juist is.	Sometimes I respond to someone's post on social media when I think the information they shared is incorrect.
P26	Ik like het omdat ik dan toch wil laten merken wat ik vind [...].	I like it [post on social media] because I want to show what I think [...].
P30	Ik reageer op dingen die ik lees op Instagram. Ik reageer als er bepaalde	I respond to things I read on Instagram. I respond when there are

	acties zijn die mensen willen organiseren. Ik reageer op mensen die dezelfde mening hebben als ik.	certain events people want to organise. I respond to people who have the same opinion as I do.
P30	Wat ik wil bereiken is een soort bewustwording en aandacht vragen voor wat ik de goede zaak vind. [...] Ik hoop dat we allemaal uiteindelijk in gaan zien dat het toch echt gaat over onze planeet en dat we daar met z'n allen toch een goed plan voor moeten kunnen verzinnen om de planeet te redden.	What I want to achieve is some sort of awareness and raise attention to what I think is the good cause. [...] I hope everyone will eventually see that it is about our planet and that we have to come up with a good plan together to save the planet.

Appendix E

Overview of Codes and Themes

Table E1

Summary of Codes

	n of participants	n of quotes contributing	Example quote	Original quote
Conversations	28	35	I talk about climate policy mainly with family and coworkers. I volunteer at an organic garden and I talk about it with the other volunteers as well. (P5)	Ik praat vooral met familie en collega's over het klimaatbeleid. Ik ben vrijwilliger bij een biologische tuinderij en ik praat hier ook over met de vrijwilligers.
Demonstrations	7	7	[...] and I have been active at Extinction Rebellion for half a year and participated in multiple events. (P7)	[...] en ik ben een half jaar lang actief geweest bij extinction rebellion en heb aan meerdere acties meegedaan.
Conflict avoidance	11	12	I talk about it [climate change] with friends, and some friends have opinions that are the opposite of my opinions. Most often we	Ik praat erover met vrienden en sommige vrienden staan met hun mening lijnrecht tegenover mijn mening. Meestal besluiten we

			decide that it is better to talk about a different subject. We do not fight, but we stop the discussion. [...] I avoid the subject with people who have opposing opinions. I do that because I do not feel like fighting. (P3)	dan dat we het maar beter over een ander onderwerp moeten gaan hebben. We hebben geen ruzie, maar stoppen dan met de discussie. [...] Ik ga het gesprek met de mensen die een tegenovergestelde mening hebben uit de weg. Dat doe ik omdat ik geen zin heb in ruzie.
Posting	3	3	I sometimes post on Twitter. [...] Then I post something about electrical bikes. I think people in the city should ride on a regular bike [...]. I think the source of electricity is up for debate. (P2)	Ik zet wel eens wat op Twitter. [...]. Ik zet er dan iets op over de elektrische fiets. Ik vind dat de mensen in de stad op een gewone fiets zouden moeten rijden [...]. De herkomst van de stroom staat voor mijn gevoel ter discussie.
Reposting/sharing	7	7	Last weekend I shared an article on Facebook about the melting of polar ice. I shared it with everyone I am friends with. (P19)	Ik heb het afgelopen weekend een artikel op Facebook gedeeld wat gaat over het smelten van het poolijs. Dat heb ik gedeeld met

				iedereen die bevriend met mij is.
Responding	9	9	Sometimes I respond to things on the internet, but that is mostly to positive things I see. (P12)	Ik reageer wel eens op iets op internet, maar dat is dan vaak op positieve dingen die ik zie.
Urgency	2	2	And I hope for a collective feeling of urgency. (P6)	En ik hoop op een gezamenlijk gevoel van urgentie.
Prioritize the environment	8	8	I understand the discussion. But there is no actual choice. There is no discussion because climate policy must simply be implemented. Climate policy should be the priority. If there is no climate policy, soon there will be nothing, so also no economy. (P10)	Ik begrijp de discussie wel. Maar er is helemaal geen keuze. Er valt niks te discussiëren want het klimaatbeleid moet gewoon uitgevoerd worden. Het klimaatbeleid moet prioriteit hebben. Als je geen klimaatbeleid voert, is er straks niks meer, dus ook geen economie.
Time is running out	2	2	[...]. When you see those news articles that we will not achieve those 1.5 degrees. Time is simply running out. (P6)	Als je nu weer die nieuwsberichten leest dat we die 1,5 graad niet gaan halen. De tijd dringt gewoon heel erg.

We need to act now	7	7	I think too little is being done and we need more intensive measures, otherwise the damage to humans, animals and nature are incalculable. (P24)	Ik denk dat er te weinig wordt gedaan en intensievere maatregelen nodig zijn, anders is de schade voor de mens, dier en natuur niet te overzien.
Spreading knowledge	4	7	My goal with responding [to posts on social media] is sharing information that is grounded in science. (P22)	Mijn doel bij het reageren is de informatie te delen wat wetenschappelijk onderbouwd is.
Influencing others	7	9	I respond [to posts on social media] because I hope people will start to think about what they write and also act accordingly. (P15)	Ik reageer omdat ik hoop dat mensen gaan nadenken over wat ze schrijven en daar ook naar gaan handelen.
Raising awareness	5	5	What I want to achieve [by sharing post on social media] is to raise some kind of awareness and draw attention to what I think is the good cause. (P30)	Wat ik wil bereiken is een soort bewustwording en aandacht vragen voor wat ik de goede zaak vind.
Right and wrong opinions/behaviour	12	12	Sometimes I also respond to something that others post on Telegram. When I read that	Ik reageer zelf ook wel eens op iets wat anderen op Telegram zetten. Als ik lees dat

			someone's opinion is incorrect. (P3)	iemands mening echt onjuist is.
Showing others where I stand	3	3	I bring it [climate change] up spontaneously and send those letters [to a newspaper] because I want to let others know what my opinion is. (P16)	Ik breng het spontaan ter sprake en stuur die brieven omdat ik anderen wil laten weten wat mijn mening is.
Worry	4	4	I am worried about how fast the climate is declining and the slow response we have as the Netherlands to implement adequate measures. (P17)	Ik maak me zorgen over de snelheid waarmee het klimaat achteruit gaat en de langzame reactie die wij als Nederland aan de dag leggen om de juiste maatregelen te treffen.
Frustration	2	2	I notice very often that people underestimate this problem. People keep flying and when I say that they say "ah well, those few flights of mine". And that bothers me immensely. (P16)	Ik merk zo veel dat mensen dit probleem onderschatten. Mensen die blijven maar vliegen en als ik dat zeg dan zeggen ze "ach, die paar vluchtjes van mij". En dat stoort mij mateloos.
Anger	1	1	I do not confront them [people with different	I do not confront them [people with different

views]. I do not do this because this topic makes me very emotional and that is not beneficial for the discussion. That emotion is frustration and behind that is anger because people do not take it seriously even though it has got to do with the future of all of us. (P6)

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Table E2*Summary of General Themes*

General Themes	Codes corresponding to Themes	Summary of Theme	<i>n</i> of participants contributing
Offline expression	Conversations, demonstrations, conflict avoidance	All participants mentioned they express themselves offline about climate change and/or climate policy in some way. The most frequently mentioned type of expression was engaging in conversations about the topic with other people. Another type of offline expression which participants mentioned they engage in was attending demonstrations with pro-climate ideology.	30
Online expression	Posting, reposting/sharing, responding	Participants were explicitly asked whether they engage in online expression about climate change and/or climate policy. Those that indicated they express themselves online elaborated about what this entails for them. Online actions include posting, reposting, sharing or responding to others'	12

		posts or articles.	
Urgency	Urgency, prioritize the environment, time is running out, we need to act now	A sense of urgency regarding climate change seemed to be present among a number of interviewees. Some participants expressed this directly, others more indirectly. For example, several participants stated that tackling climate change should be prioritized above other things, that time is running out, or that it is important we ‘do something now’. However, no participants mentioned urgency as a driver of expression.	13
Educating others	Spreading knowledge, influencing others, raising awareness	The desire to educate others about climate change was mentioned by several participants as a driver behind their online and offline expressions. For example, interviewees mentioned they want to spread knowledge or information about climate change, want to influence others’ views or behaviours, or want to raise awareness.	12
Morality	Right and wrong opinions/behaviour, showing	A sense of morality regarding climate change and climate policy was present among a number of interviewees. As such	14

	<p>others where I stand</p>	<p>that they discussed certain behaviours, opinions and/or views in terms of ‘right and wrong’. Some participants also mentioned they express themselves about climate change and climate policy in order to show others ‘where they stand’.</p>	
<p>Emotions</p>	<p>Worry, frustration, anger</p>	<p>Some participants mentioned emotions in the interviews. These emotions include worry, frustration, and anger. Participants who mentioned worrying were mostly worried about climate change and its consequences. Participants who mentioned feeling frustrated and angry felt these emotions in relation to other people who engage in behaviour that harms the environment, or have opposing views on the subject.</p>	<p>5</p>
